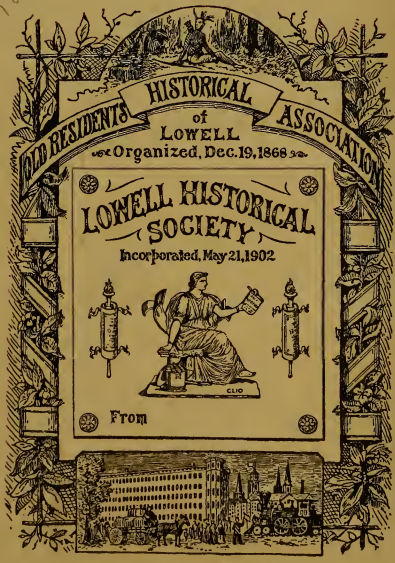
LIBRARY OF THE



CITY DOCUMENTS

OF THE

CITY OF LOWELL,

MASSACHUSETTS,

FOR THE

YEAR 1896-1897.

LOWELL, MASS.:
COURIER-CITIZEN CO., PRINTERS.
1897.

Extract from the Ordinances of Lowell.

Chapter VIII.—City Documents.

Section 5. All City Documents (except the Rules and Regulations for the Government of the Police and Fire Department) shall be printed in pamphlet form of the size of the Annual Report of the School Committee.

Section 6. All City Documents shall be bound together in one volume, under the direction of the City Clerk, and three or more copies shall be placed in the City Library, and one copy in the library of the Middlesex Mechanics' Association, one copy shall be sent to each City of the Commonwealth, to the library of the Harvard College. the Public Library of Boston the State Library, the Smithsonian Institute at Washington. and the Old Residents' Historical Association of Lowell.

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THE INAUGURAL ADDRESS

OF

HON. WILLIAM F. COURTNEY,

MAYOR OF THE CITY OF LOWELL,

TO THE

TWO BRANCHES OF THE CITY GOVERNMENT,

JANUARY 4, 1897.

LOWELL:
DAILY NEWS JOB PRINT, HILDRETH BUILDING,
1897.

ADDRESS.

Gentlemen of the City Council:—

The citizens of Lowell by their votes have chosen us to manage the municipal business for the year 1897. We have taken the oath of office, and have sworn to discharge faithfully and well the duties imposed upon us. The people expect from us honest, capable government, and will hold us to strict account for our doings. Though coming here as the representatives of different parties, we shall fail in our duty if we regard matters entirely from a party standpoint. You are not partisans here; you are the city government; and as such, you stand for the whole people. We must serve the general interest, we must advance, according to our powers, the happiness and comfort of the entire community, and disregard all factional influences. Our principal business will be to raise by taxation sufficient money to conduct the city affairs and to spend the taxes so raised economically and judiciously. Taxation is a burden that bears heavily on the people,

and we can best serve them by making it as light as possible. Extravagance in any form should be suppressed. The money we are called upon to expend comes from the pockets of thousands, in many cases from the hard earnings of the poor, and should be managed even more prudently than if it came from our private purse. At the same time no needed improvement should be neglected. False economy is the worst extravagance. Lowell is now a great city and is steadily and constantly growing. Its progress should not be retarded by any act or omission on our part, but should be promoted by every proper aid that we can give. From year to year many new things are demanded, and must be supplied; but a wise, conservative government may fairly meet the most pressing requirements, and at the same time keep the tax rate at a reasonable figure. Such action on our part will undoubtedly meet with commendation, and will justify the confidence expressed by the voters in our ability to serve them. When our term of office, which we begin today, has ended, we may say to those who have honored us by their trust in our fitness, that we have taken from them not one dollar unnecessarilly, and that every cent we have used has brought full value to the citizens.

The city business is carried on through many departments working more or less independently of one another. As time goes on you will become

familiar with their operations, but you will permit me on this occasion to call your attention to some of the most important of them.

FINANCIAL STATEMENT.

Cash in Treasury, Jan. 1, 1896	$ 85,017 01
Received into the Treasury during the year 1896	2,982,011 87
Total	$3,067,028 88
Paid from the Treasury during the year 1896	2,866,830 20
Cash in Treasury, Dec. 31, 1896	$200,198 68

CITY DEBT.

Amount of ordinary city debt, Jan. 1, 1896	$2,387,030 29		
Borrowed during the year 1896	414,000 00		
Total	$2,801,030 29		
Paid during the year 1896	220,690 00		
Total ordinary city debt, Dec. 31, 1896		$2,580,340 29	
Amount of water debt, Jan. 1, 1896	$1,301,000 00		
Paid during the year 1896	26,000 00		
Total water debt, Dec. 31, 1896		1,275,000 00	
Total permanent debt of the city, Dec. 31, 1896		$3,855,340 29	
Amount due on temporary loans, Dec. 31, 1896		$175,000 00	
Ordinary city debt, Dec. 31, 1896	$2,580,340 29		
Amount of Sinking Funds for the payment of the same, Dec. 31, 1896	194,587 86		
Net ordinary city debt, Dec. 31, 1896		$2,385,752 43	

Net ordinary city debt, Dec. 31, 1896		$2,385,752 43
Water debt, Dec. 31, 1896	$1,275,000 00	
Amount of Sinking Funds for the payment of the same, Dec. 31, 1896	196,690 90	
Net water debt, Dec. 31, 1896		1,078,309 10
Total net debt of the city, Dec. 31, 1896		$3,464,061 53
Total net debt of the city, Dec. 31, 1896		$3,464,061 53
Total net debt of the city, Dec. 31, 1895		3,107,998 80
Increase in the net city debt during the year 1896		$356,062 73

CITY INDEBTEDNESS.

Total city debt		$3,855,340 29
Deduct Water Loans	$1,275,000 00	
Deduct amount exempted by Legislature	820,000 00	
Deduct Sinking Funds	102,922 31	
		2,197,922 31
City debt as it relates to limit of indebtedness		$1,657,417 98
Limit of indebtedness for 1897		$1,723,785 70
City debt which applies to limit		1,657,417 98
Distance from limit, Jan. 1, 1897		$ 66,367 62

LOANS IN 1896.

Sewers	$75,000 00
Paving	25,000 00
Lowell Textile School	25,000 00
New School Houses	200,000 00
Paupers (improvements at City Farm)	19,000 00
Grade crossings	20,000 00
Amount carried forward	$364,000 00

Amount brought forward	$364,000 00
Schools	30,000 00
Police	10,000 00
Fire Department	5,000 00
Lighting	5,000 00
	$414,000 00

The apparent increase in the net city debt was due in a great degree directly to the loan of $200,000 necessitated by the demand for new school buildings; the loan of $25,000 to meet the city's proportion of the endowment of the textile school; the loan of $20,000 for the removal of grade crossings, and the loan of $19,000 for the purchase of land and erection of buildings at City Farm, a total of $264,000; while indirectly the transfer of $234,041.25 from the sinking funds to the city treasury reduced the amount standing as a technical offset to the city's obligations. However, a part of the sum was conservatively applied to the payment of debt maturing within the year, to the relief of the taxpayers, while the balance of $108,357.60 yet remains to be devoted to a like purpose, reducing the tax levy of 1897 to that extent.

Last year the amount of the so-called "blanket loan" was $50,000, and while this is only half of what it was the previous year, with an economical administration of affairs we should have been able

for the first time in a long period to resume the "pay as you go" policy and have paid all current expenses for the year from the annual appropriations and the legitimate receipts that came into the treasury. In two departments, the Assessors and Streets, there might have been enough saved to almost avoid the necessity of making this loan, and with the slightest degree of economy in other places it would have been possible to get along without borrowing a dollar. If the pernicious policy of borrowing money to pay a part of the current expenses is not promptly stopped in a short space of time it will lead us to the debt limit, and bring the affairs of the government to a standstill. For with its money and credit exhausted, it will be impossible to go on. It is to avoid such a calamity that has caused me to urge so persistently the abandoment of this dangerous method, and to press for a return of the sound business principle of paying current expenses from the annual receipts. It seems to me that with the corporation tax and the national bank tax being turned into the treasury instead of going as formerly to a sinking fund it ought to be possible to meet all necessary requirements without resorting to loans, and I sincerely hope the members of the government will co-operate with me to achieve this desired result.

SCHOOLS AND SCHOOL HOUSES.

Lowell has always had a just pride in her public schools, and if we may judge by the increase in attendance in recent years, never had more confidence in them than now. The average number of pupils belonging in 1896 was 9,962, a gain of 1,384 in the last three years, and 500 in 1896. While, however, this increase is a gratifying testimony to the popularity of the schools, it is, also, an added source of expense, a consideration somewhat less agreeable to the taxpayer. The total expense for the year was $261,637.13, and in the opinion of the Superintendent of Schools the conditions now prevailing will necessitate a still larger expenditure this year. The sum is a large one; but the importance and value of an education are so well understood by all, that the public never seriously objects to the size of the expenditure for schools, provided that the money is really needed, and that it is wisely and judiciously used. The increase in school expenses last year was more than covered by the two items of teachers' salaries and fuel, and in other particulars there was an actual decrease. The only increase in individual salaries was that of $200 each for special teachers, and this was offset several-fold by reducing the executive force, and by adding the supervision of the evening schools to the day work previously done by the Superintendent.

The feature of our school system in which there has been the greatest change in recent years has been the kindergarten. Lowell's first public kindergarten was opened in the fall of 1892. Four others, together with a normal training class for kindergarteners, were opened the next year; in 1895 three others were added, and in 1896 four more, making twelve in all. In the same time the normal department has graduated thirty-one kindergartners, seventeen of whom were residents of Lowell and fourteen non-residents. All the kindergartens of the city are now in excellent working order, and no part of our school system is more popular. Their cost is considerable, but the demand for them is unmistakable, and they must, therefore, be supported and paid for. It seems to me, however, that we already have enough to pretty fairly supply our needs, more, I believe, than are maintained by any other city of our size in New England, and I suggest to the School Board that the wisdom of going very slowly in opening more than we now have.

The permanent tenure of office for teachers, recommended by me two years ago and adopted by the School Board in June, 1895, has given great satisfaction to all concerned. It puts no bar in the way of the removal of an undeserving teacher, but it does give permanent tenure to the deserving, and saves all from the anxiety and humiliation of

an annual ballot. Any doubts which may have been felt by any, at first, have passed away, and the value and worth of the plan are now conceded by all.

Three years ago, the limit of the capacity of our school-houses was reached, and the need of further accommodations became so evident, early in 1896, that by special legislation the city was enabled to make a loan of $200,000 outside the debt limit, and with money thus obtained, and with that left over from the sale of the old city hall, more new school houses have since been begun than in several previous years. An addition to the Plain street school-house is ready for occupancy today and five other buildings will be finished in April, or by September at the latest. Two sections of the city, Centralville and Pawtucketville, yet remain to be provided for, and houses there, as well as a building for manual training to be placed on the lot of land on Paige street, ought to be erected this year and paid for out of the loan above mentioned.

THE ASSESSING OF TAXES.

Early in the year 1895, in a special message to the City Council, I called attention to the large sum it cost us to maintain the Assessors' department, and submitted a statement, compiled from

answers made to inquiries addressed to the Mayors of other cities, showing that the expense in Lowell was from two to three hundred per cent. greater than in other municipalities in this state. During the same year the Finance Commission examined into the subject with great thoroughness, and in its report recommended changes in method and a reduction of expenditure in this office. Again, in my inaugural of last year, I requested the City Council to take action upon this matter, and the Committee on Salaries of the government of 1896 has taken a similar stand. As pointed out in the special message above referred to, the main element of the increase of expense in Lowell, when compared with other cities, is due to the fact that we employ our Assistant Assessors the entire year, at a liberal salary, while the custom elsewhere is to hire for a brief period during the busy season. Take for instance the city of Worcester, which has a greater amount of wealth, a larger number of polls and a more numerous population than ours. There, the cost of assessing is less than one-half of what it is here, and yet it is supposed to be a model office. So, too, in Fall River and Cambridge the same relative proportions exist. In all these places the assistants are employed only when their services are actually needed. With these facts before us, it seems to me a substantial saving can be effected if the pruning knife is properly and promptly

applied. There can be no valid reason offered for a continuance of the present system; the people have a right to expect that their representatives in the government shall reduce expenditures and lighten taxation when the way is pointed out. The member who refuses so to do, violates the sacred oath he has just taken. Because of my knowledge of the needless expense in this office, for the past two years, I have purposely refrained from sending any nominations to the Board of Aldermen for the places of assistant Assessors, hoping that the City Council would adopt the changes suggested. For some reason, past governments have refused to do so. It rests with you to say whether the present extravagant method shall continue in force. I, therefore, again recommend that the necessary change in the ordinances be made, abolishing the present office of assistant Assessors, and that assistants be employed for a limited term of service and that they receive a per-diem compensentation. As assistant Assessors will continue to assess polls, it would be well to divide them equally between both political parties. This is the method in force in Boston, and is the result of legislative enactment.

POLICE AND LICENSES.

The administration of the Board of Police during the past year has in the main been satisfactory.

The system of granting liquor licenses by a commission, instead of by the Aldermen, has grown in public favor, and a return to the former method is never seriously entertained. During the year 1896 the powers vested in the Mayor and Board of Aldermen in relation to licensing, restraining and regulating theatrical exhibitions, public shows and public amusements, billiard tables, bowling alleys, auctioneers, hawkers and pedlars, carriages, wagons and other vehicles, intelligence offices, itinerant musicians, pawnbrokers, dealers in second-hand articles, and junk collectors and dealers, were transferred by Chapter 283 of the Acts of 1896, to the Board of Police. This action of the legislature has added materially to the work of the board and has increased the responsibility and accountability of that body to the public. While this condition exists and a proper administration of work is demanded, it is the duty of the City Government to assist the board in a proper way, by such legislation as will properly enable it to administer its trust with satisfactory results. It is unjust to tie the hands of the Board of Police and yet hold it to a full accountability for the performance of duties which it has not the necessary authority to properly transact. As matters stand now, the board is vested with a certain authority it cannot delegate to anybody else, and the City Council has powers which it can and should exercise to render the authority

of the board operative. An important body of citizens and tradesmen have asked for the protection of their interests, which are threatened by irresponsible pedlars, and have, through the Board of Police, requested the passage of an ordinance regulating the traffic of hawkers and pedlars, affixing a penalty for its violation, as provided in the public statutes. The board has ample anthority to make regulations for the conduct of the traffic, but it cannot affix a penalty for its violation, and an ordinance without a penalty is a blank cartridge—valueless for the enforcement of law.

The ordinances for the regulation of the other minor licenses should be amended to bring them into harmony with the latest legislation, in order that the Board of Police may have authority commensurate with its responsibilities.

CITY LIBRARY.

The City Library has begun the past year an important work in bringing its contents before its patrons in the issuance of bulletins. It is proposed to issue these monthly, and besides the additions of new volumes the bulletins will contain a reference list on some special subject. The subjects already covered are botany, chemistry and manufactures. These bulletins have been mailed to the teachers

and others known to be interested, and are distributed quarterly at the library. We hope to see this work continued.

STREETS.

A change and an improvement are needed in the method of building new streets and taking care of streets already constructed. The work in this department has not been entirely satisfactory. Large sums of money have been expended, some of which has not furnished such results as might fairly be expected. There has been an almost entire lack of system and the department has been conducted in a hap-hazard way. The appropriation for this department has been, and always will be, a large part of the revenue raised from taxation. The character of the work should be, as far as possible, permanent. Streets should be built of the best material to be had and according to the most approved developments in the art of road-building. They will last longer and give better service than those made of poor materials and built on methods long ago discredited. Everyone has an interest in good roads. They are a benefit to the business-man and assist largely the material prosperity of the municipality, while increasing the comfort of all our citizens who use them, whether afoot, on bicycles, or in carriages. The Commonwealth has

recognized the importance of building such streets as I have described, and has already built some which may well be taken by us for examples. I recommend that during the year we begin the building of one or more sections of road upon this principle, and that some thoroughfare or streets leading to the main highway of some of the surrounding towns be selected. Then we could add to this each year, and, in time, perfect a system of roads that would be a source of comfort to our citizens and would reflect lasting credit on the government that began it. Then, too, the State Highway Commission might continue the building of such roads through the adjoining towns, and this would tend greatly to increase our advantage as a business centre.

In repairing streets, it should be the aim of those having charge of such work to improve those sections where the population is densest. As the servants of the people, we ought not to be governed by class or social distinctions in the distribution of public improvements. We should endeavor to treat all in a spirit of fairness, and expend the public money in a manner that would result in the greatest good to the greatest number. Past governments have ignored this principle, for an investigation of the work done shows that sparsely settled streets in the outlying districts have received great attention, while those teeming with population

in the manufacturing centre have been neglected. In one instance last year, the sum of five thousand dollars was expended on a street on the extreme outskirts of the city, with but a few houses on it, and at the time the money was spent the consent of the Council, necessary to warrant such action, had not been obtained. This evil is the result of individual members of committees log-rolling with one another to secure improvements for the wards they represent, to the exclusion of other sections of the city. It results in great injustice, and in the future it ought not to be countenanced.

For the past two years, I have urgently pressed on the Council the extreme necessity that exists for street improvements in that portion of our city known as "Little Canada." Here is a small area of territory, into which are crowded thousands of people, and in this district there is not a street or sidewalk that is decently constructed. This is manifestly unfair to the inhabitants who dwell in this place, and we should be prompt in applying a remedy. They bear their share of the burdens of government; they should receive their proportionate part of its benefits. For the numerous children living in this vicinity, a small park or play-ground ought to be provided. The expense would be small and it would result in bringing increased health and happiness to them.

The bridge over the Merrimack river, on the extension of Moody street, has been completed and is a beautiful and substantial structure, of which the city of Lowell may well be proud. It was built by the Groton Bridge and Manufacturing Company, the same concern that built the bridge over the Concord river at East Merrimack street. The easterly approach has been much improved by the widening of Pawtucket street and the construction of curves in the immediate vicinity of the bridge. This widening is not only of advantage at the junction of Pawtucket and Moody streets, but also affords relief to travel at the junction of Pawtucket and Merrimack streets. The Proprietors of the Locks and Canals on Merrimack River generously gave the land for this improvement, and the city moved the walls and laid edgestones to conform to the new line.

PAWTUCKET GRADE CROSSING.

The portion of the work of abolishing the grade crossing at Pawtucket street over the tracks of the Boston & Maine Railroad, assigned to the city of Lowell, was begun early last year. It consists in filling the new street to the grade laid out by the Grade Crossing Commission, and constructing the roadway. During the spring months this work was continued by the Street Department as

rapidly as the work of construction of the retaining walls by the Boston & Maine Railroad would allow, but during the summer months, on account of the condition of the roads, no filling was hauled to the crossing. The retaining walls and the overhead bridge have now been completed by the railroad, and the department is pushing the work of filling as vigorously as possible. The work should be completed early in the season.

ACCEPTANCE OF NEW STREETS.

In September of last year, a new rule was added to the Joint Rules and Orders of the City Council, as follows:—

RULE 27.—"No resolution for the acceptance and laying out of any street or public highway shall be passed to a second reading by the City Council, until the City Civil Engineer shall certify to the Council that said street or public highway is fully completed and graded to the grades named in the resolution, without expense to the city."

The adoption and enforcement of this rule would doubtless, in most cases, be of benefit to the city, as the expense of building these streets in a proper manner would be borne by the real estate owners directly benefited, and that part of the appropriation of the street department heretofore spent in building these new streets could be employed in much-needed improvements and repairs.

GORHAM STREET.

The Commissioners of Middlesex County have determined on the boundary lines of Gorham street, and have filed a return ordering the city of Lowell to remove all obstructions within said boundary lines as defined therein, and to construct said street in a suitable manner before July 1, 1897. The matter of boundaries of this street having been legally settled, I would renew the recommendation of last year that this important thoroughfare be paved with granite blocks as far as the entrance to the Edson cemetery, as soon as practicable. This improvement would be greatfully appreciated by the many thousands who visit the cemeteries to pay a tribute of respect to their departed friends.

SEWERS AND DRAINS.

The past year has been a busy one for the department of Sewers and Drains. Twenty-three sewers have been built, measuring in all twelve thousand, six hundred and fifty-five (12,655) feet, or two and thirty-nine hundredths (2.39) miles; of this amount ten thousand, two hundred and forty-one (10,241) feet are pipe sewers and the remainder brick.

The most important work done was the building of an outlet sewer, running from Andover street

to the Merrimack river, for draining the Oaklands. This sewer is sufficiently large and deep to drain both the easterly and westerly slope of the Oaklands, and was a very difficult piece of work, as it was constructed through solid ledge. Near the close of the year, the Board of Aldermen passed resolutions to build nine more sewers, which will be an addition of one and forty-two hundredths (1.42) miles. There is an immediate demand for a system of sewers to drain that portion of the city which has just been opened to building by the construction of the Moody street bridge. A large number of houses are already built upon this land and many more are to be built in the coming year. No sewers have yet been constructed, nor can they be until a main outlet is provided for them into the Merrimack river.

The sewers connected with the outlet sewer at the Oaklands should be built as soon as possible, and there is also a great demand for the extension of the sewer in Shaw street, westerly to Stevens street. There is a call for sewers in the outskirts of all the various parts of the city, and a vast amount of work must be done to build those which are actually required.

PAVING.

During the year 1896, five thousand three hundred thirty-five (5,335) square yards of granite

pavement have been laid on East Merrimack, Mount Vernon and School streets Eight thousand seven hundred thirty-nine (8,739) square yards of pavement have been taken up and relaid on Bridge, Central, Gorham, Middlesex and Prescott streets and Western and Lakeview avenues.

THE PURCHASING AGENT.

On former occasions I have strongly recommended a change in the system of purchasing supplies for the various departments. The city ought to buy in the lowest market, and honest competition among dealers should be encouraged. The revenue with which to pay the bills is taken from all the people, and favortism in its expenditure should not be countenanced. Provision is made in the new charter for a Department of Supplies, and today the new official will assume his duties. I expect that this departure will result in a substantial saving to the city, and I sincerely trust that every aid will be extended by members of the government, to demonstrate the utility of this law.

THE NEW CHARTER.

During the year 1895, I appointed a commission to examine and inquire into the finances of the city, with a view to pointing out and remedying,

if possible, any defects there might be, either in the system or method of conducting the affairs of the city, in the various departments. The members of it were representative business men and were equally divided politically. With a view only to the best interests of the city, they recommended that changes be made in the charter, and in the year 1896 presented to the legislature a draft of a bill containing the changes that to them seemed necessary for the public good. The Commission believed, among other things, the Mayor should have the power to appoint and remove certain officials. This was opposed by the members of a political organization, who cut from and added to the original draft to suit their own purposes. Whether or not they accomplished what they desired remains to be learned. The bill, as mutilated and changed by them, was passed by the legislature and accepted by the citizens.

The charter amendments prepared by the Commission were clear and definite in their provisions, but after they were "doctored" to suit certain purposes they were open to various constructions, and are likely to be the cause of great trouble and perplexity, not only to this government, but to the courts, in determining whether the officers of the city should be elected or appointed. It is of the utmost importance that this question should be settled beyond doubt, as the legality of the acts of the

city officials depends upon their having a legal and valid title to the offices they hold. If an official holds an office by appointment of the Mayor when he should have been elected by the City Council, or if he holds by an election of the Council when he should have been appointed by the Mayor, he has no valid and legal title to the office. It should be the desire of all, regardless of party, to have such a question, upon which so much depends and in which the interests of the city are so much involved, settled by the proper authority. The situation should be approached by all with a view to ascertaining and doing what is right and legal. While we may have different views and preferences politically, we must remember that we owe the duty to the city, which is beyond all obligation to party, of ascertaining what is the proper and legal course to pursue.

If the Mayor should assume that he has the power to appoint the officials and the City Council should acquiesce in that view, the question would not be settled; and if, on the other hand, the Mayor should agree that the City Council had the power to elect the officials, and they proceeded so to do, the question would not be determined. Suppose the Mayor appointed Assessors and a Collector of Taxes, when they should have been elected by the City Council, or that the City Council elected them when they should have been appointed by the Mayor,

and a property owner, in either case, refused to pay his taxes on the ground that the Assessors had no power to assess, and the Collector no power to collect, not having been legally appointed or elected, grave consequences to the city might ensue. So it is in the various departments, many questions could be raised which would be not only embarrassing, but seriously affect the interests of the city and its citizens. It might be suggested that the Mayor's appointments could be rectified by an election by the City Council, but it is highly improbable that such an agreement could be be made and carried out, and even then the question at issue would not be settled.

It being absolutely necessary that this important question should be settled, and the only way in which it can be raised is by the Mayor assuming that he has the power to appoint, I deem it my duty, a duty which is demanded by the occasion, and which is simple justice to all parties interested in the welfare of the city, to exercise the power of appointment, which I assume is given in the amendments to the charter.

CONCLUSION.

In other years, during my administration, I stated publicly that I desired and sought advice from citizens that might aid me in the performance

of my duties. I acknowledge with deep gratitude the hearty co-operation given me in this direction, and I shall be ready at all times to listen to anything that may be of public benefit and to apply it as my judgment may direct for accomplishing any good result. I not only desire a continuance of such aid, but I expect it with entire confidence.

You, gentlemen, have a year of usefulness before you. You are now invested with the powers and rights which the law attaches to your office. Your duties are serious and important, and dignified by the faith the people have in you, and to merit that faith you will bring to your work your best energies, with an eye single to the general welfare, and when a year hence we depart from this office, let us leave as our monument a record of an efficient and honest city government.

MUNICIPAL REGISTER

CONTAINING

RULES AND ORDERS

OF THE

CITY COUNCIL,

AND A LIST OF

THE GOVERNMENT AND OFFICERS OF THE CITY OF LOWELL.

1897.

LOWELL, MASS.:
LOWELL SUN PRINT: SUN BUILDING:
1897.

JOINT RULES AND ORDERS OF THE CITY COUNCIL.

1. In the month of January, and not later than the second regular meeting after organization of each branch of the City Council, joint standing committees shall be appointed as follows:

A Committee on Claims,
A Committee on Education,
A Committee on the Fire Department,
A Committee on Lands and Buildings,
A Committee on Military Affairs,
A Committee on Ordinance and Legislation,
A Committee on Printing,
A Committee on Streets,
A Committee on Commons.

Each committee shall consist of two Aldermen and three members of the Common Council, except the Committee on Streets, which shall consist of two Aldermen and five members of the Common Council.

2. Each board shall, in such manner as it may determine, select its own members for any joint committee.

3. In all joint standing committees, except that on Finance, the member first named in the Board of Aldermen shall be chairman; on the Committee on Finance, the member first named in the Common Council shall be chairman; and in all joint special committees, the member first named in the board

where the business originates shall be chairman, and shall call the committee together.

4 Reports of committees shall be made to the board first meeting after such reports are prepared and signed.

5. No committee shall act by separate consultation, and no report shall be received unless agreed to in committee actually assembled.

6. It shall be the duty of every joint committee (the Committee on Streets excepted), to whom any subject may be specially referred, to report thereon within five weeks, or ask for further time.

7. The by-laws of the city shall be termed ordinances; the enacting clause of which shall be — "Be it ordained by the City Council of the City of Lowell, as follows:" In all votes by which either or both branches of the City Council express anything by command, the form of expression shall be "Ordered," and whenever either or both branches express opinions, principles, facts or purposes, the form shall be "Resolved."

8. An ordinance may originate in either board, and shall be considered in three several stages. It shall first be read for information, and the question shall then be on ordering it to the Joint Standing Committee of Ordinances and Legislation, and then sent to the other branch for concurrence. When reported back, the recommendations of the committee shall first be acted on. If it shall then be ordered to a second reading, it shall next be examined by a standing committee of that board, who shall see that it is drawn in proper form. When returned by such committee, the question shall be on ordering it to be enrolled. If so ordered, it shall then be sent to the other board, where the same order of proceeding shall be observed. When it has been ordered by both branches to be enrolled, it shall be enrolled by the Clerk of the Common Council, and shall be by him submitted to the proper committee of that board to ascertain if it has been correctly enrolled. If so reported, the question shall be on passing it to be ordained.

If it shall so pass, it shall be signed by the president of the Common Council, and be sent to the Board of Aldermen, where it shall take a like course. If passed to be ordained in that board, it shall be signed by the Chairman of the Board of Aldermen and sent to the Mayor for his approval.

9. An ordinance may be rejected in any stage, but may not pass through all its stages in the same day. Each board shall transmit to the other all papers on which any ordinance, joint resolution, or order shall be founded; and all papers, on their passage between the two boards, shall be under the signature of their respective clerks, except ordinances and joint resolutions in their last stage, which shall be signed by the presiding officers. If papers come before either board which have been duly acted upon in the other board, the presiding officer shall so state without reading the endorsements of the clerk, unless the latter are called for.

10. All enrolled ordinances shall be written in a fair and legible hand, or typewritten, provided a permanent record ribbon is used, without interlineations or erasures and no enrolled ordinance or resolution shall be amended.

11. Every joint resolution shall be read in the board in which it is introduced, and the question shall be upon ordering it to a second reading. If so ordered, the question shall then be upon its passage. If passed, it shall be sent to the other board, where the order of proceeding shall be the same. When passed by both boards, the resolution shall be presented to the Mayor for his approval, and when the same shall be in force, shall be enrolled by the Clerk of the Common Council, and when found correctly enrolled as provided in the case of an ordinance it shall by signed by the President of the Common Council and the Chairman of the Board of Aldermen, and be presented to the Mayor for his signature if he approved the original.

12. Joint orders shall require but one reading, and when adopted, shall be sent to the Mayor for his approval, except

when they relate to a question of a convention of the two branches, or the election of any officer.

13. When either board does not concur with the other in any ordinance or resolution sent from the other, notice of such non-concurrence shall be given by a written message.

14. In any case of non-concurrence, each board may appoint a Committee of Conference. Such committee shall consist, in each case, of three members who support the vote of their own board. These two committees may meet jointly or separately, and a majority of each shall decide its action.

15. All reports and other papers submitted to the City Council shall be written in a fair hand, or typewritten, provided a permanent record ribbon is used, without endorsement, except in case of the introduction of an order or resolution. In such a case, the member introducing an order or resolution shall subscribe his name at the bottom of the back of the same. All other endorsements upon the back of papers shall be made by the clerk; and the clerks of the boards, respectively, shall, on seasonable notice, make copies of any papers to be reported by committees, at the request of the respective chairmen thereof.

16. No business shall be transacted by the City Council in convention, except such as shall have been previously agreed on, unless by unanimous consent.

17. In balloting in joint convention, blanks shall be reported but not counted as votes.

18. When both boards are in session at the same time, neither shall adjourn without giving notice to the other of its intention.

19. All petitions, reports, or other papers of whatever description, relating to business requiring the concurrent action of both boards of the City Council, shall be submitted by committees to the clerk of each board at least twenty-four hours before the time of meeting of either board, and the clerk of each board shall prepare a brief synopsis of all matters to be

acted upon, and place the same on the desk of each member of the City Council prior to the hour of opening the meeting. No reports or orders not previously furnished as herein described shall be considered in either branch unless two-thirds of the members present consent thereto.

20. These rules may be suspended for a specific purpose, or amended, whenever twenty-four members of a joint convention of the two branches shall so direct, or whenever a joint order to that effect shall be passed by the votes of six members of the Board of Aldermen and eighteen members of the Common Council.

21. No resolution for the extension and laying out of any street or public highway shall be passed to a second reading by either branch of the City Council until the city civil engineer shall certify to the councill that said street or highway is fully completed, and graded to the grades named in the resolution, without expense the the city.

22. A yea and nay vote of the members of the City Council shall be required to pass any order or vote involving the expenditure or appropriation of the public moneys, or involving any debt or liability, and such vote shall be entered upon the records of each branch of the City Council.

23. Less than a quorum of each branch of the City Council may adjourn to a fixed day earlier than the regular meeting, and shall have power to compel the attendance of all absent members in such manner as the City Council may by ordinance provide.

24. In the absence of rules governing both boards of the City Council, Cushing's Manual shall decide the point.

RULES AND ORDERS OF THE BOARD OF ALDERMEN.

1. At the appointed time the presiding officer shall take the chair, and, on the appearance of a quorum, proceed to business.

2. The order of business shall be as follows:

First.—At all regular meetings the journal of the last regular meeting and all intervening meetings of the board shall be approved without reading, unless the reading be called for by some member of the board.

Second.—Petitions and similar papers.

Third.—Appointments, elections, etc.

Fourth.—New business, which, unless otherwise ordered, will take its place at the foot of Orders of the Day.

Fifth.—Orders of the Day, consisting of unfinished business of the last previous meeting, papers from the Common Council, and such matters as have been introduced as new business. By a vote of six members, any matters in the Orders of the Day, may at any time be taken up for immediate consideration.

3. The presiding officer shall decide all points of order, subject to appeal. He may read while sitting, but must rise to put a question. He shall allow debate on a question until the vote has been declared, but not on the verification of a vote; and on a demand of two members, shall take every vote by yeas and nays.

4. When a question is under debate, the presiding officer shall receive no motion but to adjourn, to take up a special assignment, to lay on the table, to postpone to a day certain,

to commit, to amend, or to postpone indefinitely. These several motions shall have precedence in the foregoing order, and debate upon any of them shall be confined to the actual motion, and shall not go into the merits of the main question, except on amendment.

5. When a vote has passed, except for adjournment or to lay on the table, any member voting with the majority may move a reconsideration, to be acted upon at the same meeting. Any member voting with the minority may move a reconsideration, to be acted upon at the next meeting, which latter motion shall have priority, if made before the motion first mentioned shall have been decided. No motion shall be twice reconsidered.

6. No member shall be interrupted while speaking, but by a call to order, or for the correction of a mistake; nor shall there be any conversatien among the members while a paper is being read, or a question stated from the chair.

7. When any member is about to speak in debate, he shall rise in his place and respectfully address the presiding officer, shall confine himself to the question under debate, and avoid personality.

8. In the month of January the following committees shall be appointed: —

A Committee on Bills in Second Reading.

A Committee on Electric Wires.

A Committee on Enrollment.

A Committee on Licenses.

A Committee on Lighting Streets.

A Committee on Repairs of Streets.

A Committee on Sewers.

A Committee on Weights and Measures.

A Committee on State Aid.

The committees on Licenses, on Sewers, and on Electric

Wires shall consist of three members each; the other committees shall be composed of two each.

9. Every member present shall be held obliged to vote on all questions, and not to leave without permission, if his presence is necessary to make a quorum.

10. The clerk shall prepare for the use of the board a copy of the Orders of the Day, to which shall be added a list of matters laid on the table or postponed to a day certain.

11. When a reference is proposed to more than one committee the question shall first be upon a standing committee of the board, then a special committee, then a joint standing committee, and last a joint special committee.

12. These rules may be amended or suspended whenever two-thirds of the members present may so vote; but a motion to amend shall not be made and finally acted upon at the same meeting.

13. All nominations shall lie on the table three days at least before action thereon by the board.

14. All papers, of whatever description, which may require action by this board, shall be presented to the City Clerk not later than the hour of noon on the day of each regular meeting. Petitions, reports, and other papers, presented after that hour on such day, will not be considered until the next meeting.

RULES AND ORDERS OF THE COMMON COUNCIL.

1. The President shall take the chair precisely at the hour appointed for the meeting, call the members to order, and within ten minutes (or sooner, if a quorum be present), he shall cause the roll to be called, and the names of absentees recorded. In the absence of the President the oldest member present (meaning in time of service) shall call the Council to order, and preside until a President *pro tempore* be chosen.

2. He shall preserve order and decorum; and strictly prohibit all smoking in the council chamber between the hours of 8 and 10 P. M. He may speak to points of order in preference to other members, rising from his seat for that purpose, and shall decide questions of order subject to an appeal to the Council by any member.

3. He shall rise to address the Council, to state facts, but may put questions, or read, sitting.

4. He shall declare all votes; but if a vote be doubted, the President shall, without further debate, require the members voting in the affirmative and negative to rise and stand until they are counted, and he shall declare the result.

5. He may call any member to the chair, but such substitution shall not extend beyond an adjournment, and when out of the chair, the President may express his opinion on any subject under debate, and he shall not resume the chair while the same question is pending.

6. All questions shall be propounded in the order in which

they are moved, unless the subsequent motion be previous in its nature.

7. After a motion is stated by the President, it shall be disposed of by a vote of the Council, unless the mover withdraw it before a decision or amendment.

8. A motion to adjourn shall always be in order, unless the Council is engaged in voting, or when both boards are in session at the same time. That and the motion to lay on the table shall be decided without debate.

9. The previous question shall be in this form: "Shall the main question be now put?" It shall only be admitted when demanded by a majority of members present, and, until it is decided, shall preclude all amendment and further debate of the main question.

10. The yeas and nays shall be taken on any question upon the request of one-third of the members present.

11. When two or more members happen to rise at the same time, the President shall name the member who shall speak first.

12. Every motion shall be reduced to writing, if the President or any member require it.

13. When a question is under debate, no motion shall be received but to adjourn, to lay on the table, for the previous question, to postpone to a certain day, to commit, to amend, or to postpone indefinitely; which several motions shall have precedence in the order in which they are arranged; and no motion to postpone or commit shall be allowed twice in the same day, in the same stage of the ordinance or proposition.

14. When any member is about to speak in debate, or deliver any matter to the Council, he shall rise in his place and respectfully address the presiding officer, confining himself to the question under debate, and avoid personality.

15. No member shall be mentioned in debate by his name, but may be described by the place he sits in, or such other designation as may be intelligible and respectful.

16. No member speaking shall be interrupted by another, but by a call to order or to correct a mistake. If any member, in speaking or otherwise, transgresses the Rules of the Council, the President shall, or any member may, call him to order; in which case the member so called to order shall immediately be seated until the question of order is decided. If the decision be in favor of the member called to order he shall be at liberty to proceed; if otherwise he shall not proceed without the leave of the Council.

17. No member shall speak more than twice to the same question without obtaining leave of the Council.

18. Whilst the President or any member is speaking, none shall stand up or pass unnecessarily before the person speaking.

19. When a vote has passed, except for adjournment or to lay on the table, any member voting with the majority may move a reconsideration, to be acted upon at the same meeting. Any member voting with the minority may move a reconsideration, to be acted upon at the next meeting; which latter motion shall have priority, if made before the motion first mentioned shall have been decided. No motion shall be twice reconsidered.

20. Every member who shall be in the Council when a question is put shall give his vote, unless the Council, for special reasons, excuse him.

21. No motion or proposition, on a subject different from that under consideration, shall be admitted under color of an amendment.

22. All reports may be committed or recommitted at the pleasure of the Council.

23. The division of a question may be called for when the sense will admit of it.

24. When the reading of a paper is called for and objected to, it shall be determined by a vote of the Council.

25. No standing order of the Council shall be suspended, unless three-fourths of the members present consent thereto; nor shall any rule or order be repealed or amended without

one day's notice being given of the motion therefor, nor unless a majority of the whole Council concur therein.

26. The order of business shall be as follows:

1. Roll Call.
2. Reading of Records.
3. Papers from the Board of Aldermen.
4. Communications and reports from city officials.
5. Presentation of petitions, remonstrances and memorials.
6. Report of Committees.
7. Unfinished business of preceding meetings.
8. Motions, Orders or Resolutions.

The above order of business shall not be departed from, except by vote of a majority of the members present, but the Council may appoint a committee of two to approve the records of the clerk during the year, and if such committee is appointed, the reading of the records shall be omitted, unless called for by one-third of the members present.

27. The seats of the Common Council shall be numbered and determined by lot, and no member shall change his seat but by permission of the President.

28. All committees, except such as the Council determine to select by ballot, shall be appointed by the President, and the political minority shall be represented by at least one member.

29. No member shall be obliged to serve on more than two committees at the same time, or be chairman of more than one.

30. All memorials and other papers addressed to the Council shall be presented by the President, or by a member in his place, who shall explain the subject thereof; and they shall be taken up in the order in which they were presented, unless the Council shall otherwise direct.

31. Standing committees shall be appointed on the following subjects: —

On Second Reading of Bills and Ordinances.

On Enrollment.

On Elections and Returns.

32. No committee shall sit during the sittings of the Council without special leave, except the Committee on the Second Reading of Bills and Ordinances and the Committee on Enrollment.

33. The rules of proceeding in the Council shall be observed in the Committee of the Whole, so far as they are applicable except the rule limiting the time of speaking.

34. When a committee is nominated by the chair, the person first named shall be chairman. In election of committees by ballot, when a chairman is not specially chosen, the person having the highest number of votes shall act as chairman; and in case of an equality in votes between two or more members of a committee, the members thereof shall choose a chairman.

35. All committees of the Council shall consist of three members, unless a different number be specially ordered; and no report shall be received from any committee unless agreed to in committee actually assembled; and all reports shall be in writing.

36. It shall be the duty of every committee of the Council to whom any subject may be specially referred, to report thereon within five weeks, or ask for further time.

37. Members of the Council may attend meetings of any of its committees, but shall not vote thereat.

38. All ordinances and resolutions shall have two several readings before they shall be finally passed by this Council. See Joint Rules 7 and 8.

39. All ordinances after being read a second time shall be

referred to the Committee on the Second Reading of Bills and Ordinances, and after being reported upon by said committee, shall be again read, after which second reading the question shall be on passing the same to be enrolled.

40. No ordinance or resolution imposing penalties, or authorizing the expenditure of money, shall have more than one reading the same day.

41. Any member offering a resolution shall write his name on the bottom of the back of such resolution.

42. All salary officers shall be chosen by written or printed ballots; and in the election of any officers by ballot, blanks shall be reported but not counted as votes.

43. The clerk shall keep brief minutes of the votes and proceedings of the Council, entering thereon all accepted resolutions; shall notice reports and memorials, and other papers submitted to the board, only by their titles or a brief description of their purport.

44. The Clerk of the Common Council shall keep the record of committees who may require that service; and on the appointment of every standing committee, a book for records shall be provided by its chairman, or by said clerk. The clerk shall have the custody of all minutes by him kept; and the records of the several committees shall be open to the inspection of the members of the City Council.

45. With the exception of an order for a joint convention, any joint order originating in the Common Council shall be copied, and shall, previous to the hour for calling the meeting to order, be posted in some prominent place in the Council Chamber, where it may be open to the inspection of the members.

46. "Cushing's Manual" shall be the authority on all questions of debate or parliamentary usage, when the same does not conflict with the rules and orders of the Common Council.

CITY GOVERNMENT FOR 1897.

MAYOR.

WILLIAM F. COURTNEY,

69 Third Street.

ALDERMEN.

CHARLES E. HOWE.....Chairman.

CHARLES H. COSGROVE.....476 Merrimack Street

LUCIUS A. DERBY.....148 First Street

EDWIN S. EASTMAN.....96 West Street

EDWARD T. GOWARD.....274 Appleton Street

GEORGE L. HOOPER.....7 Belmont Street

CHARLES E. HOWE.....45 Varney Street

ABBOTT LAWRENCE.....113 Fort Hill Avenue

EDWARD B. PEIRCE.....17 Belmont Street

FRED A. TUTTLE.....307 Thorndike Street

GIRARD P. DADMAN.....Clerk.

COMMON COUNCILMEN.

Ward One.

ANADORE B. BOSCA.....15 Stackpole Street

CLARENCE W. DANA.....459 Dutton Street

SAMUEL SCOTT.....155 Market Street

Ward Two.

WILLIAM J. DUNN.....304 Adams Street
JAMES KENNEDY.....31 Marion Street
DENNIS J. PENDERGAST.....95 Dummer Street

Ward Three.

WILLIAM H. BROWN.....290 Westford Street
JAMES SMITH.....62 Grove Street
OLIVER D. WILDER.....16 Coral Street

Ward Four.

FRANCIS M. FAGAN.....18 Newhall Street
JAMES F. MISKELLA.....10 Chase Street
STEPHEN O'HARE.....13 Kidder Street

Ward Five.

GEORGE FARLEY.....142 Gorham Street
MICHAEL E. SULLIVAN.....17 Merrill Street
CHARLES E. THORNTON.....22 Ames Street

Ward Six.

JOHN H. BEAULIEU.....202 Hildreth Street
WALTER F. LEIGHTON.....949 Bridge Street
GEORGE H. TAYLOR.....29 Twelfth Street

Ward Seven.

CLOVIS BELANGER.....543 Fletcher Street
LORENZO E. SMITH.....122 Mammoth Road
LINCOLN R. WELCH.....49 Butterfield Street

Ward Eight.

ARTHUR W. LANG.....69 Forrest Street
CHARLES F. LIBBY.....69 Robbins Street
WILLIAM H. PENN.....262 London Street

Ward Nine.

BUTLER AMES.....333 Andover Street
LOUIS B. SYKES.....859 Lawrence Street
HENRY K. WHITE.....250 Nesmith Street

WILLIAM H. PENN.....President.
FRANK N. OWEN.....Clerk.

MEETINGS OF THE CITY COUNCIL.

The regular meetings of the City Council are held at the City Hall as follows:—

Board of Aldermen.

January	5 and 19	July	13 and 27
February	9 and 23	September	14 and 28
March	9 and 23	October	12 and 26
April	13 and 27	November	9 and 23
May	11 and 25	December	14 and 28
June	8 and 22		

At 8 P. M.

Common Council.

January	12 and 26	July	6 and 20
February	2 and 16	September	7 and 21
March	2 and 16	October	5 and 19
April	6 and 20	November	2 and 16
May	4 and 18	December	7 and 21
June	1 and 15		

At 8 P. M.

JOINT STANDING COMMITTEES OF THE CITY COUNCIL

FINANCE—The Mayor and Alderman Hooper; Councilmen Taylor, L. E. Smith and Scott.

APPROPRIATIONS—The Mayor, Aldermen Peirce, Howe and Goward; Councilmen Dana, Brown, Libby and Beaulieu.

ACCOUNTS—Alderman Goward; Councilmen Libby and White.

CLAIMS—Aldermen Cosgrove and Goward; Councilmen Leighton, White and Pendergast.

COMMONS—Aldermen Cosgrove and Tuttle; Councilmen Beaulieu, Scott and Kennedy.

EDUCATION—Aldermen Peirce and Howe; Councilmen James Smith, Dana and Dunn.

FIRE DEPARTMENT — Aldermen Derby and Cosgrove; Councilmen Brown, Leighton and O'Hare.

LANDS AND BUILDINGS—Aldermen Howe and Peirce; Councilmen Dana, James Smith and Dunn.

MILITARY AFFAIRS—Aldermen Howe and Peirce; Councilmen Ames, Welch and Fagan.

ORDINANCES AND LEGISLATION—Aldermen Goward and Eastman; Councilmen Bosca, Ames and Miskella.

PRINTING—Aldermen Hooper and Derby; Councilmen Taylor, Libby and Sullivan.

STREETS—Aldermen Peirce and Lawrence; Councilmen Wilder, Belanger, Lang, Sykes and Thornton.

STANDING COMMITTEES OF THE BOARD OF ALDERMEN.

BILLS IN SECOND READING—Aldermen Eastman and Derby.
ELECTRIC WIRES—Aldermen Tuttle, Eastman and Hooper.
ENROLLMENT—Aldermen Lawrence and Hooper.
LICENSES—Aldermen Eastman, Goward and Derby.
STATE AID—Aldermen Peirce and Howe.
LIGHTING STREETS—Aldermen Hooper and Cosgrove.
REPAIRS OF STREETS—Aldermen Lawrence and Peirce.
SEWERS—Aldermen Goward, Howe and Tuttle.
WEIGHTS AND MEASURES—Aldermen Lawrence and Tuttle.

STANDING COMMITTEES OF COMMON COUNCIL.

BILLS IN SECOND READING—Councilmen Welch, Wilder and Pendergast.
ELECTIONS AND RETURNS—Councilmen Farley, Fagan and Sullivan.
ENROLLMENT—Councilmen L. E. Smith, Lang and Farley.

CITY OFFICERS, 1897.

CITY CLERK.

GIRARD P. DADMAN ....Office, City Hall

Chosen by the City Council in convention in January. City Charter, Sect. 17.

CITY TREASURER AND COLLECTOR OF TAXES.

CHARLES F. COBURN..... .....Office, City Hall

Chosen by the City Council in convention in January. City Charter, Sect. 17.

AUDITOR OF ACCOUNTS.

DAVID CHASE .....Office, City Hall

Chosen by concurrent vote in January or February. Ord., Chap. 2, Sect. 1.

SUPERINTENDENT OF STREETS.

GEORGE L. FOWLER.....Office, City Hall

Chosen by concurrent vote in January or February. Ord. Chap. 35, Sect. 1.

SURVEYORS OF HIGHWAYS.

Chosen by concurrent vote in January or February. City Charter, Sect. 17; Ord., Chap. 35, Sect. 1.

CIVIL ENGINEER FOR THE CITY.

GEORGE BOWERS .....Office, City Hall

Chosen by concurrent vote in January or February. Ord., Chap. 13, Sect. 1.

CITY MESSENGER.

C. FRANK GOING.....Office, City Hall

Chosen by concurrent vote in January. Ord., Chap. 10, Sect. 1.

CITY SOLLICITOR.

FRANCIS W. QUA .....Office, City Hall

Chosen by concurrent vote in January or February. Ord., Chap. 11, Sect. 1.

LIBRARIAN OF THE CITY LIBRARY.

FREDERICK A. CHASE.....Office at City Library

Chosen by the Board of Trustees of the City Library. Chap. 231, Sect. 5, Acts 1888.

TRUSTEES OF THE CITY LIBRARY.

WILLIAM F. COURTNEY, Mayor, Ex-Officio..... Chairman
GEORGE F. RICHARDSON.....Vice Chairman
FRANK P. PUTNAM .....Term Expires 1898
GEORGE F. RICHARDSON, Vice Chairman..... " " 1899
THOMAS WALSH..... .... " " 1900
STEPHEN J. JOHNSON..... " " 1901
PHILIP J. FARLEY..... " " 1902
FREDERICK A. CHASE..... .....Clerk

Appointment by the Mayor in December. Chap. 231, Acts 1888.
Regular meeting last Tuesday in each month.

SUPERINTENDENT OF PUBLIC BUILDINGS.

RICHARD BRAY .....Office, City Hall

Chosen by concurrent vote in January or February. Ord., Chap. 5, Sect. 1.

CITY PHYSICIAN.

THOMAS B. SMITH, M. D..... .....Office, Board of Health

Appointed by the Mayer and Aldermen in January, for three years.

TRUSTEES PUBLIC BURIAL GROUNDS.

WILLIAM F. COURTNEY, Mayor, Ex-Officio.....Chairman
FRED WOODIES, CHARLES N. BAGLEY.

SUPERINTENDENT OF BURIALS.

FREDERICK A. BATES..... Office, Board of Health

Chosen by concurrent vote in January or February. Ord., Chap. 4, Sect. 1.

ASSESSORS OF TAXES.

JOHN P. MAHONEY .....Term Expires 1898
ABEL WHEELER ..... " " 1899
NATHAN D. PRATT ..... " " 1900
ABEL WHEELER .....Chairman.
NATHAN D. PRATT.....Secretary.
STEPHEN J. KIRBY.....Clerk.

Chosen by concurrent vote in January or February, one member retiring annually, Ord., 1890.

ASSISTANT ASSESSORS OF TAXES.

FRANK B. HAWES.
GEORGE A. LOCKE.
AVILA BOURBONNIERE.
ROBERT L. READ.
C. ARTHUR ABBOTT.
HENRY HOOLE.

OVERSEERS OF THE POOR.

JAMES H. McKINLEY.....Chairman.
WARD 1—SAMUEL HOLGATE, 6 Elliot Street.....Term Expires 1898
" 2—THOMAS MAHONEY, 137 Colburn Street, " " 1898
" 3—HORACE ELA, 407 Walker Street..... " " 1898
" 4—JOHN J. GILBRIDE, 10 Prospect Street.. " " 1898

WARD 5—DANIEL J. O'BRIEN, 151 Concord Street, Term Expires 1899
" 6—CHARLES H. KIMBALL, 100 Myrtle Street, " " 1899
" 7—JAMES McKINLEY, 24 West Meadow Road, " " 1898
" 8—HENRY J. WILLIAMS, 354 Pine Street, " " 1899
" 9—HERBERT V. HUNT, 115 Fort Hill Ave. " " 1899

Regular meetings last Thursday of the month at the City Farm.

Secretary and Superintendent Out-Door Poor.

MARTIN J. COURTNEY, 26 Ames Street.....Office, City Hall

HOURS: 9 A. M. TO 3 P. M.

Superintendent of In-Door Poor.

ALBERT PINDAR.....Office and Residence, City Farm

List of Commtttees.

ACCOUNTS—Kimball, Williams and O'Brien.
AGRICULTURE, CATTLE AND SWINE—McKinley, Ela and Mahoney.
CARE AND REPAIRS OF BUILDINGS—Ela, Hunt and O'Brien.
CLOTHING, FURNITURE AND BEDDING—Holgate, Ela and Gilbride.
DISPENSARY—McKinley, Holgate and Gilbride.
PRINTING—Williams, Kimball and Gilbride.
OUT-DOOR RELIEF—Holgate, Hunt and O'Brien.
PROVISIONS AND SUPPLIES—McKinley, Mahoney and Holgate.
WOOD YARD—Hunt, McKinley and Mahoney.

Ward and Dispensary Physicians.

WARD 1—L. J. McDONOUGH.....296 Market Street
" 2—A. J. HALPIN .....26 Central Street
" 3—CHARLES H. FRYE.....408 Middlesex Street
" 4—W. G. EATON.....417 Middlesex Street
" 5—W. A. JOHNSON.....160 Merrimack Street
" 6—CHARLES H. RICKER.....2 Wyman's Exchange

City Dispensary.

CITY HALL.

JOHN F. BOYLE, Clerk.

Open week days—9 A. M. to 1 P. M., and 2,30 to 5 P. M.

MEMBERS OF THE LOWELL WATER BOARD.

OFFICE, CITY HALL.

FRANK L. WEAVER.....President.

From the Board of Aldermen: CHARLES E. HOWE.

From the Citizens:

AUGUST FELS..... .....Term Expires 1898

STEPHEN H. JONES..... " " 1899

FRANK L. WEAVER..... " " 1900

MICHAEL J. DOWD..... " " 1901

JOHN W. CRAWFORD, Clerk.

ROBERT J. THOMAS, Superintendent.

The members of the Lowell Water Board are chosen by concurrent vote in January or February for a term of four years from the first Monday of March following their election, one member retiring annually. The member from the Board of Aldermen is elected annually.

The Superintendent is chosen in March by the Board.

The Clerk is chosen by the Board in June. Revised Ordinances, Chapter 45.

COMMISSIONERS OF SINKING FUNDS.

PETER F. CONATON..... .....Term Expires 1898

AUSTIN K. CHADWICK..... " " 1899

FRED. A. BUTTRICK..... " " 1900

CHARLES F. COBURN, Secretary and Treasurer.

The Commissioners are elected under the provisions of Chap. 29 of the Public Statutes, Sect. 10.

BOARD OF CIVIL SERVICE EXAMINERS.

JOSEPH SMITH.....Chairman.

JOHN J. COLTON, M. D., CHARLES H. CONANT, JOSEPH SMITH.

CHARLES H. CONANT, Secretary.

FIRE DEPARTMENT.

The Chief Engineer is elected by concurrent vote in the month of March or April, for the term of three years after the first day of May next succeeding.

Chief Engineer.

EDWARD S. HOSMER..... 202 Westford Street

Office, Engine House, Middle Street.

Assistant Engineers.

JAMES F. NORTON.....22 Ames Street
GEORGE F. SALMON.....91 Mt. Washington Street
EDWARD MELOY ....166 Charles Street
HENRY W. BURTON..... .....15 Kimball Avenue

JAMES F. NORTON, Clerk of the Board.

The Clerk is chosen by the Engineers.

Operator of the Fire Alarm Telegraph.

HENRY C. FERNALD.....Central Station

Committee on Fire Department.

Aldermen DERBY and COSGROVE, Councilmen BROWN, LEIGHTON and O'HARE.

THE BOARD OF POLICE OF THE CITY OF LOWELL.

Appointed by the Mayor under the provisions of Chap. 428 of the Acts of 1894 and Chap. 187 of the Acts of 1895.

JOHN A. FAULKNER, Chairman.

HARRY R. RICE.....Term Expires 1898
JOHN A. FAULKNER..... " " 1900
PETER J. BRADY..... " " 1902

JOSEPH SMITH, Clerk.

Police Roll, 1897.

GEORGE R. DAVIS, Superintendent of Police....11 Huntington Street
JAMES A. McQUADE, Deputy Superintendent.....227 Concord Street
WILLIAM B. MOFFATT, Captain.....43 London Street
JAMES E. WEBSTER, Lieutenant.....273 Westford Street
WILLIAM R. KEW, Lieutenant.....17 Princeton Street

JAMES BROSNAN, Lieutenant .....190 Perry Street
GEORGE B. PALMER, Sergeant .....135 Aiken Avenue
HUGH DOWNEY, Sergeant.....9 Chestnut Street
THOMAS E. ALLEN, Inspector, Criminal... .....32 West Street
CHARLES LAFLAMME, Inspector, Criminal.....730 Merrimack Street
DAVID J. DONALDSON, Inspector, Liquor, 506 East Merrimack Street
FRANK GOODWIN, Inspector, Liquor .....17 Coral Street
MICHAEL E. McDONALD, Inspector of Claims...3 Huntington Street
WILLIAM G. BUMPS, Court Officer.....19 Eighteenth Street
HENRY FARRINGTON, Court Officer..... .....5 Coral Street
ALFRED M. HOLMAN, Keeper.....126 Powell Street
JAMES McLAUGHLIN, Keeper ....219 Stackpole Street
ISAAC L. LIBBY, Court Officer and Keeper.....11 Coral Street
MICHAEL J. BURNS, Electrician.....24 Fulton Street
JAMES H. HOWARD, Operator .....880 Gorham Street
CHESTER E. RYDER, Patrol Guard .....855 Lawrence Street
MARTIN CONNORS, Patrol Guard.....282 Concord Street
JAMES W. KILBURN, Driver of Patrol .....92 Shaw Street
ALBERT CROWELL, Hostler.....7 Huntington Street
MARGARET WALLACE, Matron..... .....Police Station

Patrolmen.

ATKINSON, THOMAS R.....11 Read Street
BIGELOW, SAMUEL J.....479 School Street
BLOOD, JOSIAH S.....70 Smith Street
BOYLE, JAMES.....45 Hampshire Street
BRADY, PATRICK H..... .....176 Crosby Street
BREAULT, ELOI N.....65 Mammoth Road
BREEN, DENNIS J.....12 Coral Street
BUCHANAN, JOHN.....106 Beech Street
BURNETT, WILLIAM C..... 43 Hildreth Street
CAWLEY, PETER..... .....872 Bridge Street
CLEMENT, HORACE W.....26 Eighteenth Street
COGGER, DANIEL W.....254 Beacon Street
COLEMAN, THOMAS F.....736 Central Street
CORCORAN, PETER T.....336 High Street
CREAHIN, JOHN..... ....441 Pine Street
CROWLEY, JOHN B.....112 Walker Street
CROWLEY, JOHN J..... 32 Chapel Street
CURRAN, PETER... ..... 50 Tremont Street

DENNETT, JOHN S.....55 Read Street
DOW, JAMES E.....50 C Street
DUNCAN, ALEXANDER.....107 South Highland Street
DUNLAVY, JAMES F.....158 Avon Street
DWYER, PHILIP.....18 Wall Street
FAVOR, JACOB G.....97 Chelmsford Street
FITZGERALD, THOMAS H.....215 Manchester Street
FITZPATRICK, PATRICK.....30 Pine Street
FOX, EDWARD.....Cor. Lawrence and Moore Streets
FOX, FRANK.....20 Chambers Street
FOX, JOHN W.....484 Bridge Street
GANLEY, JOHN J.....46 Hildreth Street
GARDNER, WILLIS L.....452 Westford Street
GRADY, WILLIAM H.....39 Lundberg Street
GREGG, CHARLES.....96 Fort Hill Avenue
GRINNELL, ENOCH N.....110 Appleton Street
HESSIAN, STEPHEN F.....250 Suffolk Street
HICKSON, JOHN.....60 Mammoth Road
HILL, EDWARD E.....308 High Street
HILL, CHARLES S.....21 Boott Corporation
HOGAN, DAVID H.....48 Fremont Street
HOLLAND, JAMES E.....34 Second Avenue
HOWARD, CORNELIUS.....79 Andrews Street
HURLEY, JAMES F.....778 Moody Street, Pawtucketville
INGALLS, LINDSEY E.....110 Beech Street
JONES, WILLIAM B.....221 Branch Street
KANE, BARTHOLOMEW.....Rear 86 Andrews Street
KIERNAN, MICHAEL.....261 Worthen Street
LANE, DANIEL W.....509 School Street
LEIGHTON, JOHN L.....109 South Walker Street
LEIGHTON, EURIC L.....48 White Street
LENNON, MICHAEL J.....10 Pleasant Street
LIBBEY, ALBERT E.....61 Eighteenth Street
MACKENZIE, JOHN R.....288 Westford Street
MAGUIRE, HUGH.....21 Richmond Street
MAHER, MARTIN A.....31 Walnut Street
MARKHAM, JAMES.....12 Burns Street
MARSHALL, FRANK J.....57 Clare Street
MARSHALL, GEORGE W.....485 Parker Street
McCANN, MATTHEW.....

McCLOUGHRY, THOMAS.....66 West Fourth Street
McINTEE, CORMACK..... 109 Jewett Street
McKAY, JOHN H.....130 Bartlett Street
McNABB, JAMES..... 9 West Meadow Road
MOLONEY, THOMAS A.....44 Whipple Street
MOORE, FRANCIS E..... 749 Middlesex Street
MULRY, JOHN J..... 71 Bowers Street
MURPHY, ANTHONY.....191 Concord Street
O'BRIEN, WILLIAM H.....87 Hampshire Street
O'CONNELL, JOHN..... ..... 12 Madison Street
O'CONNELL, MICHAEL.....61 Newhall Street
PAGE, ALONZO J..... 410 Westford Street
PROVENCHER, NAPOLEON .....39 Fourth Avenue
QUINN, HENRY F.....45 Durant Street
RILEY, JAMES.....150 Pleasant Street
RYAN, BARTHOLOMEW.....568 Lawrence Street
SANBORN, THOMAS J.....126 Grove Street
SPARKS, JOHN F.....32 Lawrence Street
STOWELL, ROBERT W.....17 Sutherland Street
SWAN, EDWARD T.....30 Congress Street
TILTON, HERMON N..... .....14 Whipple Street
TILTON, JOHN W..... 12 Whipple Street
WALSH, JOHN A.....53 Third Avenue
WELCH, REDMUND, JR..... 42 North Street
WELCH, JOHN N.....71 Whipple Street
WHITTAKER, JOHN T..... 63 Congress Street
WHITNEY, FRANK H..... 108 D Street
WHITWORTH, JAMES H.....23 North Franklin Court
YOUNG, GEORGE H..... .....556 Suffolk Street

Keeper of Lock-up.

GEORGE R. DAVIS.

Constables.

ALLEN, THOMAS E.
BALLOU, GEORGE W.
BARIL, OVIDE E.
BATES, FREDERICK A.
BIRON, EMERILE M.
BRADLEY, CHARLES F.
BROSNAN, JAMES.
BUMPS, WILLIAM G.
CORDEAU, J. WILFRED.
DAVIS, GEORGE R.
DONALDSON, DAVID J.
DUTTON, GEORGE E.

FITZGERALD, DAVID.
FLYNN, JOHH H.
FLYNN, RICHARD J.
GATELY, BERNARD F.
GERRISH, ENOCH.
GOODWIN, FRANK.
GORDON, WILLIAM H.
GRAY, JOHN J.
KELLEY, GEORGE A.
KEW, WILLIAM R.
LAFLAMME, CHARLES.
LAPIERRE, JOSEPH S.
LEONARD, MARTIN G.
MAGUIRE, JOHN E.
MANSUR, EZRA E.
MERCIER, HENRY.
MERCIER, JOSEPH A.
McMANUS, JOHN.
McOSKER, EUGENE P.
McQUADE, JAMES A.
McQUADE, JOHN A.
MOFFATT, WILLIAM B.
O'BOYLE, MICHAEL J.
O'CONNELL, FRANCIS X.
PARTRIDGE, ALBERT V.
PRINCE, HENRY K.
SEARLE, JOHN P.
TURCOTTE, ISIDORE.
TUTTLE, WOODBRIDGE W.
WEBSTER, JAMES E.
WORCESTER, CHARLES H.

Police Court.

SAMUEL P. HADLEY ..... Standing Justice

JOHN J. PICKMAN, }
JOHN F. FRYE, } ..... Special Justices

JAMES F. SAVAGE ..... Clerk

EDWARD W. TRULL ..... Assistant Clerk

HEALTH COMMISSIONER.

GEORGE R. DAVIS ..... Office, Police Station

Chosen by concurrent vote by nomination commencing in the Board of Aldermen, in January or February. Ord. Chap. 29, Sect. 2.

BOARD OF HEALTH.

THOMAS F. HARRINGTON, M. D., Chairman.
JAMES BAYLES.
WILLIAM F. CURTIN.

Appointed by the Mayor and Board of Aldermen in January. Chap. 80, Public Stat., Sec. 8 and 15; Ord., Chap. 22, Sect. 1.

BOARD OF REGISTRARS OF VOTERS.

JAMES F. OWENS ....Term Expires May 1, 1898
EDWARDS CHENEY..... " " " 1899
JOHN P. FARLEY..... " " " 1900

GIRARD P. DADMAN, City Clerk, Ex-Officio.

Chapter 417, Acts of 1893.

FENCE VIEWERS.

SIMON B. HARRIS. LEROY C. HALL. JOSHUA M. HADLEY.

Chosen by concurrent vote by nomination commencing in the Board of Aldermen in January or February. Ord., Chap. 41, Sect. 1.

FIELD DRIVERS.

MARTIN CONNORS. W. R. KEW.
JAMES BROSNAN. JAMES E. WEBSTER.

Chosen by concurrent vote commencing in the Board of Aldermen in January or February. Ord., Chap. 41, Sect. 1.

POUND KEEPER.

LAWRENCE J. THYNE.

Chosen by concurrent vote by nomination commencing in the Board of Aldermen in January or February. Ord., Chap. 41, Sect. 1.

SEALER OF WEIGHTS AND MEASURES.

NATHANIEL E. ANNIS.

Appointed by the Board of Aldermen by nomination in March or April. Pub. Stat. Chap. 65, Sect. 8; Acts of 1882, Chap. 42. Ord., Chap. 41, Sect. 2.

INSPECTOR OF MILK AND VINEGAR AND OLEOMARGARINE.

THOMAS O. ALLEN.....Office, City Hall
JAMES E. HILL.....Collector of Samples

Appointed by the Board of Aldermen by nomination in January or February. Ord., Chap. 41, Sect. 2.

INSPECTOR OF ANIMALS AND PROVISIONS.

WALTER A. SHERMAN.....Office, 340 Central Street

Appointed by the Mayor and Aldermen annually in March. Acts of 1894, Chap. 491, Sect. 1.

INSPECTORS OF PETROLEUM OILS.

EDWARD S. HOSMER. THOMAS O. ALLEN.

Appointed by the Mayor and Aldermen. Pub. Stat., Chap. 59, Sect. 6.

INSPECTORS OF BOILERS.

RICHARD DOBBINS..... Office, Tanner Street
BARTHOLOMEW SCANNELL.....Office, 36 Tanner Street
JAMES A. READY.....

Pub. Stat., Chap. 102, Sect. 49.

FISH WARDEN.

GEORGE SPENCE.

Appointed by the Mayor and Board of Aldermen. Pub. Stat., Chap. 91, Sect. 42.

MEASURER OF WOOD AND BARK AT CITY SCALES—INSPECTOR OF BALED OR BUNDLED HAY.

GEORGE F. NOONAN.....Office at City Scales, rear Market House Building.

Appointed by the Board of Aldermen in January or February. Ord., Chap. 46, Sect. 1; Chap. 21, Sect. 1.

MEASURERS OF WOOD AND BARK BROUGHT BY WATER OR RAILROAD CARS INTO THE CITY.

JOHN F. BATEMAN. JOSEPH HOVEY. HENRY K. GATES,
THOMAS J. KENNEDY. HARRIET E. GORMLEY.

Appointed by the Board of Aldermen in January or February. Ord., Chap. 46, Sect. 1.

MEASURERS OF WOOD AND BARK.

COBURN, CLARENCE G.....
GATES, HENRY K.....
GORMLEY, HARRIET E.....
HILL, CYRUS F.....
HOVEY, JOSEPH.....
KENNEDY, THOMAS J.....
ROURKE, FRED H.....984 Gorham Street
STANLEY, HARRY L.....
SULLIVAN, DANIEL J.....984 Gorham Street

Appointed by the Board of Aldermen in January or February. Ord., Chap. 46, Sect. 1.

MEASURERS OF GRAIN.

E. BLANCHE MORSE.
JAMES W. MOULTON.
FRANK H. PARKER.
HENRY J. WILLIAMS.

Fees 2½ mills a bushel for measuring. Appointed by the Board of Aldermen in January or February. Ord., Chap. 41, Sect. 2.

SURVEYORS OF LUMBER.

ALLEN, MELANCTHON M.
BAKER, E. GARFIELD.
BATEMAN, JOHN F.
CHENEY, FRANK P.
CONANT, FREDERICK.
FOLEY, CHARLES D.
GAFFNEY, PATRICK J.
GILMAN, ALBERT I.
HILL, CYRUS F.
FITZPATRICK, MICHAEL.
LATOUR, W. F.
LEAVITT, GEORGE E.
McDONALD, MURDOCK B.
McLEOD, MURDOCK K.
MOULTON, IVORY F.
ROBINSON, CHARLES D.
STOCKMAN, EDWARD.
WALSH, PATRICK.

Chosen by concurrent vote by nomination commencing in the Board of Aldermen in January or February. Ord., Chap. 41, Sect. 1.

SURVEYORS OF PLASTERING, BRICK, STONE WORK OR PAINTING.

BAKER, E. GARFIELD.
BATEMAN, JOHN F.
BROOKS, HENRY O.
FAVOR, WILLIAM A.
HOVEY, JOSEPH.
ILSLEY, ALDEN B.
LYFORD, ALFRED E.
SMITH, MELVIN B.

Appointed by the Board of Aldermen in January or February. Ord., Chap. 41, Sect. 2.

WEIGHERS OF HAY AND OTHER ARTICLES.

BEALS, LAFORREST.....City Stables
BROWN, F. L.....13 Shuattuck Street
BROUSSEAU, PIERRE A.....City Stables
BURNS, GEORGE E.....700 Broadway
CLIFFORD, ARTHUR I.....L. M. S.
COBURN, CLARENCE G.....Pawtucket Sq.
COBURN, WALTER S.....Congress Street
GATES, HENRY K.....70 Middle Street
GORDON, JOHN G.....
GORMLEY, HARRIET E.....45 Perry Street

HALL, LEROY C.....631 Dutton Street
HARMON, LENORA E..... 6 Fletcher Street
HASEY, HENRY P..... 6 Fletcher Street
HENDRICKS, FRANK .....
KELLEY, GEORGE G.....700 Broadway
KENNEDY, THOMAS J.....70 Middle Street
KEW, JOHN J.....City Stables
MAGUIRE, MICHAEL..... " "
MORSE, BLANCH E.....13 Olive Street
MOULTON, JAMES W.....79 Market Street
PARKER, FRANK H.....1083 Gorham Street
ROURK, FRED H.....984 Gorham Street
SHORT HARRY W .....Congress Street
SMITH JESSE J..... 6 Fletcher Street
STANLEY, HARRY L.....
SULLIVAN. DANIEL T..... ....984 Gorham Street
WILSON, CHARLES A..... City Stables
WILSON, ERWIN A.....700 Broadway
WILSON FRANKLIN T.....City Stables

WEIGHERS OF COAL.

BROTHERS, FANNIE..... Cor. Hale and Howard Streets
CAWLEY, EDWARD..... 87 Rogers Street
CHOATE, JAMES F..... 731 Dutton Street
DOYLE, JOHN..... 223 Moody Street
DREWETT, EDWARD..... 261 Dutton Street
FARNHAM, GEORGE W..... 306 School Street
HORNE, DANIEL W..... Cor. Hale and Howard Streets
HORNE, FRED..... " " " " "
KING, GARDNER W..... 15 Thorndike Street
MILLS, LEWIS E.....731 Dutton Street
PARKER, HARRY J ....731 Dutton Street
QUINN, JOHN P.....Congress Street
RUSHWORTH, CHARLES B.....201 Dutton Street
SEXTON, CORNELIUS E..... 223 Moody Street
WHITE, HERBERT R.....15 Thorndike Street

Appointed by the Board of Aldermen in January or February. Ord., Chap. 41, Sect. 2.

JANITOR OF HUNTINGTON AND JACKSON HALLS.

CHARLES H. LANDRY.

Appointed by the Mayor.

SCHOOL COMMITTEE, 1897.

ANDREW G. SWAPP.....President

ARTHUR K. WHITCOMB.....Secretary.

Ward 1—AZRO H. SCHOOLCRAFT.....Term Expires 1897
46 Bowditch Street.

Ward 2—THOMAS J. MULLIGAN..... " " 1897
Telephone 269-4. Sun Office.

Ward 3—GEORGE F. THOMAS ..... " " 1898
417 Middlesex Street.

Ward 4—WILLIAM J. KELLEY ..... " " 1897
295 Central Street.

Ward 5—HUGH F. FARLEY ..... " " 1898
202 Concord Street.

Ward 6—FRANK K. STEARNS..... " " 1898
Telephone 478-2. 256 Lawrence Street.

Ward 7—ANDREW G. SWAPP..... " " 1897
Telephone 330. 307 Pawtucket Street.

Ward 8—WILLARD EVERETT..... " " 1898
12 Belmont Street.

Ward 9—ALBERT G. THOMPSON'..... " " 1897
Telephone 343-3. 195 East Merrimack Street.

Standing Committees.

1. ON TEACHERS—Messrs. Swapp, Everett, Kelley.
2.—ON BOOKS AND SUPPLIES — Messrs. Thomas, Schoolcraft, Stearns, Mulligan, Farley.
3. ON EVENING SCHOOLS—Messrs. Everett, Swapp, Schoolcraft, Stearns, Kelley.
4. ON HIGH SCHOOL —Messrs. Thompson, Everett, Swapp, Mulligan, Kelley.
5. ON PENMANSHIP AND DRAWING—Messrs. Thomas, Schoolcraft, Farley.
6. ON MUSIC—Messrs. Schoolcraft, Thompson, Farley.
6. ON REPORTS AND PRINTING—Messrs. Stearns, Thomas, Farley.
8. ON ACCOUNTS—Messrs. Mulligan, Thompson, Stearns.
9. ON SCHOOL HOUSES AND HYGIENE—Messrs. Swapp, Thomas. Mulligan.
10. ON RULES—Messrs. Thompson, Everett, Kelley.

Assignment of Schools.

MR. SCHOOLCRAFT, Ward 1—Edson, Elliott, Kirk, Cottage, Chapel.

MR. MULLIGAN, Ward 2—High, Worthen, Cheever, Morrill, Dutton Street Kindergarten.

MR. THOMAS, Ward 3—Lincoln, Pawtucket, Howard, Grand, Mammoth Road, Lincoln School Kindergarten.

MR. KELLEY, Ward 4—High, Butler, London, Weed, Agawam, Carter, Lyon, Agawam and Chapel Street Kindergartens.

MR. FARLEY, Ward 5—Green, Charles, Central, Ames, Fayette.

MR. STEARNS, Ward 6—Varnum, West Sixth, Tenth, Lakeview, Billings, Centralville Kindergarten.

MR. SWAPP, Ward 7—High, Bartlett, Training School, Cabot, Cross, Varnum Avenue, Pawtucketville Training and Mt. Vernon Street Kindergartens.

MR. EVERETT, Ward 8—High, Highland, Franklin, Dover, Powell, Plain, Middlesex Village, Franklin and Highlands Kindergartens,

MR. THOMPSON, Ward 9—High, Moody, Pond, High Street, Sycamore and Moody Kindergartens.

Evening Schools.

MR. EVERETT—High, Mann, Worthen, Middlesex Village.

MR. SWAPP—Bartlett, Green, Pawtucket.

MR. STEARNS—Varnum, Aiken Avenue.

MR. SCHOOLCRAFT—Edson, Colburn, High Street.

MR. KELLEY—Butler, Franklin.

Superintendent of Public Schools.

ARTHUR K. WHITCOMB.....Office in City Hall

OFFICE HOURS—One hour after the forenoon session of the schools; and from 2 to 3 o'clock Saturday afternoon.

Telephone 566-4.

Truant Commissioners.

JOHN F. WILLIAMS. WILLIAM F. THORNTON.

JAMES KELLEY.

Office in City Hall.

OFFICE HOURS—Saturday, 2 to 3 o'clock P. M. Other days, 4 to 5 o'clock P. M. except during July and August, when the office will be open from 9 to 10 o'clock A. M.

Regular Meetings of the School Committee.

January	25	July	26
February	22	August	30
March	29	September	27
April	26	October	25
May	31	November	29
June	28	December	27

CHARTER AMENDMENTS, ACTS OF 1896.

[CHAP. 415.]

AN ACT TO AMEND THE CHARTER OF THE CITY OF LOWELL.

Be it enacted, etc., as follows:

SECTION 1. All executive powers which are now by law vested in the city council of the city of Lowell, or either branch thereof, shall hereafter be vested in and exercised by the mayor of said city, except as hereinafter otherwise provided.

SECT. 2. The mayor may suspend or remove any executive or administrative officer, except as hereinafter provided, for such cause as he shall deem sufficient, and shall set forth in the order of suspension or removal his reasons therefor, provided that no removal shall be made upon partisan grounds. The order of suspension or removal shall not take effect until it is approved by the city council voting by yeas and nays. The city council may by a two thirds vote in each branch, voting by yeas and nays, remove any of said officers without the consent of the mayor: *provided, however*, that nothing contained in this section shall apply to any of the following departments, namely:—The school committee, the police commission, the water board, the overseers of the poor, or the trustees of the public library.

SECT. 3. There shall be a department of supplies, and all material and supplies for the city shall be purchased by the chief or head of such department, subject to the approval of the mayor. So far as is practicable purchases shall be after public advertisement and under contract approved by the mayor. All bills for material and supplies shall show the date of purchase, date of delivery, the unit of price, the quality and quantity of articles purchased and received, the number and date of the order for purchase, and if the purchase is under contract, the number and date of the contract, and shall be entered in full in an invoice book, which shall always be open to public inspection. The chief of this department shall be elected by the qualified voters of the city voting at the annual municipal election, and shall hold his office for the next municipal year thereafter, subject to the provisions of section two of this act.

SECT. 4. The mayor shall cause to be kept a record of all his official acts, and to aid him in his official duties may appoint one or more clerks.

SECT. 5. The heads of the several departments and offices shall have the power to appoint and employ and to discharge all subordinate officers and employees in their respective departments; and they shall keep a record, subject to inspection, of all so appointed and employed and of all discharged, and in all cases of discharge the grounds therefor, provided however that no removals shall be made upon partisan grounds.

SECT. 6. The heads of the several departments and offices shall have the general charge and management of all matters pertaining to their respective departments, and shall make and execute all contracts necessary therefor, except for the purchase of material and supplies; but every contract made as aforesaid in which the amount involved exceeds three hundred dollars shall be approved by the mayor before going into effect: *provided*, that nothing in this section shall be construed to prevent the city council by ordinance from transferring any of the duties imposed upon an appointed head of a department by this act or by ordinance, excepting the purchase of material and supplies, to another head of a department or board or commission.

SECT. 7. Neither the city council nor either branch thereof, nor any committee or member thereof, shall directly or indirectly take part in the employment of labor, the purchase of material, the construction, alteration or repair of any public works or other property, or in the care, custody or management of the same, or in general in the expenditure of public money or in the conduct of the executive or administrative business of the city, except as may be necessary for defraying the contingent and incidental expenses of the city council or of either branch thereof; nor shall they or either of them take part in the making of contracts.

SECT. 8. No sum appropriated for a specific purpose shall be expended for any other purpose; and no expenditure shall be made and no liability shall be incurred by or on behalf of the city until the city council has duly voted an appropriation sufficient to meet such expenditure or liability, together with all prior unpaid liabilities which are payable therefrom, except that after the expiration of the financial year and before the making of the regular annual appropriations liabilities payable out of the regular appropriation may be incurred to an amount not exceeding one sixth of the total of the appropriation made for similar purposes in the preceding year: *provided, however*, that nothing herein contained shall be construed to restrict or limit the school committee in any expenditure which it is now or may be hereafter authorized to make under any general law of the Commonwealth, or to restrict or limit payments on account of the permanent or temporary debt, or such as are required by law to be made to the Commonwealth.

SECT. 9. All revenues and all moneys accruing to the city of Lowell from any source whatever, except trust funds and the revenues of the water department, shall when collected or paid into the treasury be carried to one general account, to be known as the General

Treasury Fund; and all appropriations by or on behalf of said city, except from trust funds and on accounts of the water department, shall be from such fund and as provided in section ten of this act.

SECT. 10. All bills or other claims, before they are finally certified by the auditor or paid, shall pass the inspection of a committee of the city council on accounts. Said committee shall consist of one member of the board of aldermen and two members of the common council, to be elected annually by ballot by the body they respectively represent. Said committee may report any such bill or claim to the city council with their reasons therefor, and no bill or claim so reported shall be passed by the auditor or be paid without the consent of the council. Said committee may require the opinion of the city solicitor as to the legality of a bill or other claim.

SECT. 11. A yea and nay vote of the members of the city council shall be required to pass any order or vote involving the expenditure or appropriation of the public moneys, or involving any debt or liability, and said vote shall be entered upon the records of each branch of the city council.

SECT. 12. Less than a quorum of either branch of the city council, or of the school committee, or of the board of overseers of the poor, may adjourn to a fixed day earlier than the next regular meeting, and shall have power to compel the attendance of absent members in such manner as the city council may by ordinance provide.

SECT. 13. All acts or parts of acts and all ordinances of the city of Lowell inconsistent herewith are hereby repealed and annulled: *provided*, that no act or ordinance heretofore repealed shall thereby be revived; and *provided, also*, that nothing in this act shall be taken to prohibit the city council from abolishing any department, board, office or commission created by ordinance.

SECT. 14. The question of the acceptance of this act shall be submitted to the qualified voters of the city of Lowell at the annual state election in the present year, and the affirmative votes of a majority of the voters present and voting thereon shall be required for such acceptance. If so accepted so much thereof as provides for the election of a chief of the department of supplies shall take effect at the next annual municipal election, and the act shall take full effect on the first Monday of January in the year eighteen hundred and ninety-seven. [Approved May 16, 1896.

ACTS OF 1897.

[CHAP. 95.]

AN ACT RELATIVE TO THE DUTIES AND POWERS OF CERTAIN OFFICERS OF THE CITY OF LOWELL.

Be it enacted, etc., as follows:

SECTION 1. The city council of the city of Lowell, and each branch thereof, shall have and exercise all the power and authority relative to the election or appointment of city officers, or the confirmation of appointments to office which were vested in them prior to the enactment of section one of chapter four hundred and fifteen of the acts of the year eighteen hundred and ninety-six.

SECT. 2. The chief of the fire department of said city shall be elected by concurrent vote of both branches of the city council.

SECT. 3. The city council shall by ordinance determine what officers shall be the heads of the various departments of the city government. The head of the departments of supplie may sell or dispose of the personal property of the city, upon the recommendation of the mayor and of the head of the department to which such property belongs, except the products of the city farm, which the superintendent of said farm shall have the right to dispose of.

SECT. 4. All ordinances of said city inconsistent herewith are hereby annulled, and all acts and parts of acts inconsistent herewith are hereby repealed.

SECT. 5. This act shall take effect upon its passage. [Approved February 20, 1897.

ORDINANCES OF THE CITY OF LOWELL

Passed Since 1894.

An Ordinance authorizing the city treasurer to issue registered certificates, notes or bonds in exchange for certificates, notes or bonds payable to bearer.

Be it ordained, etc., as follows:

The city treasurer may, in accordance with the provisions of section 5 of chapter 77 of the public statutes, at the request of the owner or holder of any bond, promissory note or certificate of indebtedness of the city of Lowell, at any time while more than one year remains before the principal of such bond, note or certificate is payable, issue in exchange therefor a bond, note or certificate of same effect, payable to the owner or holder by name.

The city treasurer may also, under like condition, issue registered certificates, in substitution for any mutilated, defaced or indorsed bonds, notes or certificates; and where a bond, note or certificate of any issue has been lost or destroyed, the city treasurer, under the direction of the joint standing committee on finance, may issue in place thereof a new bond, note or certificate of the same effect.

The city auditor, as well as the city treasurer, shall keep a register of the dates, numbers and amounts of all bonds, notes and certificates issued by the city treasurer, showing to whom they were issued, when they are payable, and if issued in exchange, for what they were substituted. [Approved May 12, 1896.

An Ordinance amending section thirteen of chapter one of the revised ordinances so as to provide that the salaries and compensation of city officers when once established shall continue until re-established or changed.

Be it ordained, etc., as follows:

Section 13 of chapter 1 of the revised ordinances is hereby amended by striking out, between the word "year" in the third line of said section and the word "provided" in the sixth line thereof, the following words: "for the year commencing on the first Monday of January next ensueing; and no change of salary shall be made to take effect during the time for which said salary was established," and inserting in place thereof the following: "provided that when such salaries and compensation shall have been once established, they

shall continue until re-established or changed in pursuance of the provisions of this section; and," so that said section as amended shall read as follows:

SECTION 13. The salaries and compensation of city officers shall be established in the month of December and after the annual municipal election shall have been held, in each year; provided, that when such salaries and compensation shall have been once established, they shall continue until re-established or changed in pursuance of the provisions of this section; and provided, that in case any new office shall be created, the salary of said newly created office may be fixed at any time; and the salaries or compensation fixed for the payment of said officers shall be in full for all services performed by them by virtue of their offices; and all sums of money received by them from any and every source, in discharge of said services during any quarter of the fiscal year, shall at the expiration of said quarter be by them paid over or accounted for to the city treasurer. [Approved May 12, 1896.

AN ORDINANCE REGULATING THE WEIGHING AND MEASURING OF CERTAIN ARTICLES PURCHASED BY THE CITY.

Be it ordained, etc., as follows:

All supplies of hay, grain, straw, coal, and any other material purchased for the use of the city or any department thereof exceeding one hundred pounds in weight and usually weighed, shall be weighed on the city scales, and all wood purchased for said city shall be measured by the city measurer of wood, and no bills shall be paid by the city treasurer, or approved by any committee for such article so furnished the city, unless the certificate of said weigher or measurer shall accompany, or be attached to said bill. [Approved May 12, 1896.

AN ORDINANCE TO PREVENT THE PLACING OF ASHES, GLASS, CROCKERY, ETC., IN OR ON THE PUBLIC STREETS OR WAYS.

Be it ordained, etc., as follows:

SECTION 1. Any person who shall put or place, or cause to be put or placed, in or upon any street, lane or alley, or other public place in this city, any ashes, glass, crockery, scrap iron, nails, tacks or any other article which would be liable to injure the feet of children or animals or the tires of bicycles or other vehicles which have wheels with rubber or pneumatic tires, shall be deemed guilty of a misdemeanor.

SECT. 2. Any person violating the provisions of the preceding section or who is guilty of the misdemeanor therein described, shall be liable to a fine of not less than two dollars, or more than twenty dollars for each offence. [Approved Oct. 9, 1896.

AN ORDINANCE AMENDING SECTIONS ONE AND NINE OF CHAPTER TWENTY OF THE CITY OF LOWELL.

Be it ordainud, etc·, as follows :

SECTION 1. That section 1 of chapter 20 of the ordinances of the city of Lowell be and the same is hereby amended by inserting after the word "engineer" in the second line of said section, the words, "a first assistant engineer and three other," and by striking out the word "four" in the second line of said section, and by inserting after the word "removed" in the sixteenth line of said section, the words "the first assistant engineer shall be appointed by the mayor and Aldermen in the month of March or April, or when ever a vacancy occurs, and he shall enter upon the discharge of the duties of his office on the first day of May of the year in which appointed, if appointed for a full term prior to May of any year, and he shall hold said office for a term of three years from said first day of May, and until his successor is appointed, or he is removed : and if appointed after the first day of May in any year, he shall enter upon the duties of said office forthwith and shall continue therein until the expiration of the full term as existing at the time of said appointment, or until removed," and by inserting between the words "said" and "assistant" in the seventeenth line of said section, the word "other" and by inserting after the word "engineer" in the twenty-eighth line of said section, and before the word "shall" in the twenty-ninth line of said section, the words "and first assistant engineer," so that said section shall read as follows :

SECTION 1. The fire department shall consist of a chief engineer, a first assistant engineer, who shall perform such duties as may be required of him by the chief engineer, and three other assistant engineers and as many enginemen, hose men, hook and ladder men, and other persons, to be divided into companies, as the number of engines and other fire apparatus of the city shall from time to time require : the chief engineer shall be appointed by the mayor and aldermen in the month of March or April, and whenever a vacancy occurs, and he shall enter upon the discharge of the duties of said office on the first day of May of the year in which appointed, if appointed for a full term prior to May of any year, and he shall hold said office foi the term of three years from said first day of May or until he is removed : and if appointed after the first day of May of any year, he shall enter upon the discharge of the duties of said office forthwith, and shall continue therein until the expiration of the full term as existing at the time of his said appointment, or until removed. The first assistant engineer shall be appointed by the mayor and aldermen in the month of March or April, and whenever a vacancy occurs, and he shall enter upon the discharge of the duties of his office on the first day of May of the year in which appointed, if appointed for a full term prior to May of any year, and he shall hold said office for a term of three years from said first day of May and until his successor is appointed or he is removed : and if appointed after the first day of May in any year, he shall enter upon the duties

of said office forthwith, and shall continue therein until the expiration of the full term as existing at the time of his said appointment, or until he is removed: and the appointment of said other assistant engineers shall be made by the mayor and aldermen in the month of March or April annually, and whenever a vacancy occurs: and they shall hold their respective offices for the term of one year from the first day of May succeeding their appointment, or until others are chosen: all other members of the fire department shall be nominated by the board of engineers, and their names sent to the mayor and aldermen, and when by them appointed they shall be members of the fire department: provided, that vacancies may be filled at any time, and that the mayor and aldermen may at any time remove any and all of said officers or members: except that the chief engineer and first assistant engineer shall not be removed without a hearing and cause shown thereat. No person shall be appointed a member of the fire department who does not sustain a good moral character and who is not a citizen of the city of Lowell.

SECT. 2. This ordinance shall take effect upon its passage. [Approved Nov. 27, 1896.

AN ORDINANCE IN RELATION TO AN ORDINANCE ON OPENINGS AND EXCAVATIONS IN STREETS AND IMPOSING A PENALTY.

Be it ordained, etc., as follows:

SECTION 1. No person, firm or corporation shall dig up, make any excavation in, or in any manner change or interfere with the surface or grade of any street for the purpose of laying water, gas or sewer pipes or railway tracks, or for any other purpose, without first giving notice to the superintendent of streets, which notice shall state specifically the time when work will be commenced and the probable time within which it shall be completed.

SECT. 2. When any opening or excavation shall be made in any street in pursuance of section 1, the superintendent of streets, by himself or by a servant or agent appointed by him for the purpose, shall see that the surface of such street is left in good order and condition for public travel thereon. The expense for labor and material used in closing and covering such excavation shall in all cases be borne by the party causing the same to be made.

SECT. 3. Said superintendent shall, when about to build a new sewer or repair an old one, notify all the abutters on that part of the line of said sewer when he proposes to do work so that said abutters may enter said sewer. He shall notify all abutters, when about to construct a new street, at least four weeks before beginning work, and when about to make a new surface of any street, at least two weeks before beginning work, shall notify the superintendent of lamps and water board and all persons authorized to place any obstruction in such street, and shall require and see that all said departments or persons having any work to be done in the street so designated, shall

do all such work before the surface of such street is again prepared for and opened to public travel, and after the completion of the work then done in such street, shall not permit any department or person who shall have been so notified, for the space of two years, to again disturb the surface of such street or way within the area of such previous disturbance, except in case of obvious necessity, to be verified in writing to, and approved by the mayor, and except in cases of tracks or leaks in pipes, sewers or wires.

SECT. 4. Any person, firm or corporation who shall dig up, make any excavation, or in any way change or alter the grade or surfacce of any accepted street, without giving the notice mentioned in section 1 of this ordinance shall be punished by a fine not exceeding $20.

SECT. 5. All ordinances and parts of ordinances, resolutions and orders of the city council inconsistant herewith, are hereby repealed. [Approved November 27, 1896.

AN ORDINANCE AMENDING SECTION TWELVE OF CHAPTER FIVE OF THE REVSIED ORDINANCES.

Be it ordained, tc., as follows:

That section 12 of the revised ordinances of the city of Lowell be and the same is hereby amended by striking out the words "nor on either side of Westford Street from the westerley line of Grand Street to the easterly line of Royal Street, for a distance of fifty feet back from either line of Westford Street." [Approved July 21, 1897.

AN ORDINANCE AMENDING SECTION FIFTEEN, CHAPTER THIRTY-NINE OF THE REVISED ORDINANCES OF THE YEAR EIGHTEEN HUNDRED AND NINETY-FOUR.

Be it ordained, etc., as follows:

That section 15, chapter 39 of the revised ordinances of 1894 be and is hereby amended by striking out of the seventh line the word forty-third, and inserting in place thereof the word forty-fifth. [Approved July 21, 1897.

AN ORDINANCE REGULATING HAWKERS AND PEDDLERS.

Be it ordained, etc., as follows:

SECTION 1. No person shall hawk or peddle, sell or expose for sale within said city any of the articles enumerated in section 1 of chapter 68 of the public statutes, until he has been duly licensed by and has recorded his name and residence with the board of police of the city of Lowell, and has been assigned a number by said board, to be worn in such manner as said board may prescribe. Provided, however, that the foregoing provisions shall not apply to any other person than the one named in the license.

SECT. 2. No person hawking, peddling or selling, or exposing for sale any of the articles enumerated in section 1 of chapter 68 of the public statutes, shall cry his wares to the disturbance of the peace and comfort of the inhabitants of the city.

SECT. 3 No hawker or peddler shall carry or convey any of the articles enumerated in chapter 68 of the public statutes in any manner that will tend to injure the public health, or disturb the public peace or comfort, nor otherwise than in vehicles and receptacles which have printed on them in letters and figures at least two inches in height the name of the person selling and the number given him by the board of police.

SECT. 4. Whoever violates any of the provisions of the preceding sections of this ordinance shall be liable to a penalty of not more than twenty dollars for each offence. [Approved July 29, 1897.

POPULATION, LEGAL VOTERS, ETC., BY WARDS.

Wards	1895	Precincts	REGISTERED VOTERS Dec., 1895 City Election Males	Females	Total	Nov., 1896 State Election Males	Females	Total	Dec., 1896 City Election Males	Females	Total	VOTE FOR MAYOR 1895 Bennett	Courtney
1		1	566	75		545	67		562	67			
		2	525	102		571	47		595	51			
		3	410	25		399	23		420	23			
	9,506		1,501	202	1,703	1,515	137	1,652	1,577	141	1,718	724	645
2		1	464	52		460	51		482	52			
		2	515	30		473	24		492	24			
		3	532	31		505	22		534	22			
	10,495		1,511	113	1,624	1,438	97	1,535	1,508	98	1,606	298	1,033
3		1	507	76		498	63		526	63			
		2	598	43		658	32		666	32			
		3	598	54		609	48		617	48			
	9,236		1,703	173	1,876	1,765	143	1,908	1,809	143	1,952	1,007	543
4		1	517	32		520	25		538	25			
		2	497	58		491	48		502	48			
		3	634	45		634	41		640	41			
	9,240		1,650	135	1,785	1,645	114	1,759	1,688	114	1,802	395	1,138
5		1	512	75		502	57		512	57			
		2	564	80		574	63		583	64			
		3	501	88		482	63		501	64			
	8,454		1,577	243	1,820	1,558	183	1,741	1,596	185	1,781	397	1,020
6		1	628	121		666	108		671	110			
		2	516	66		541	51		562	51			
		3	474	32		487	30		515	30			
	9,332		1,618	219	1,837	1,694	189	1,883	1,748	191	1,939	762	765
7		1	644	95		569	73		585	74			
		2	639	189		675	166		691	167			
		3	392	86		447	78		455	78			
	13,120		1,675	370	2,045	1,691	317	2,008	1,731	319	2,050	801	727
8		1	503	26		578	26		588	27			
		2	599	62		664	49		669	49			
		3	582	86		594	75		605	76			
	7,938		1,684	174	1,858	1,836	150	1,986	1,862	152	2,014	1,153	426
9		1	493	160		500	127		509	128			
		2	441	112		482	96		486	96			
		3	600	61		655	50		666	55			
	7,038		1,534	333	1,867	1,637	277	1,914	1,661	279	1,940	753	722
	84,359		14,453	1,962	16,415	14,779	1,607	16,386	15,180	1,622	16,802	6,290	7,019

POPULATION OF THE CITY OF LOWELL.

Year	Population	Year	Population	Year	Population	Year	Population
1828	3,532	1837	18,010	1855	37,554	1875	49,688
1830	6,477	1840	20,981	1860	36,827	1890	59,485
1832	10,254	1844	25,163	1865	30,990	1885	64,107
1833	12,963	1846	29,127	1866	36,878	1890	77,696
1836	17,633	1850	33,383	1870	40,928	1895	84,359

CATALOGUE

OF THE

GOVERNMENT OF THE CITY OF LOWELL

IN

CHRONOLOGICAL ORDER OF SERVICE,

From Its Institution, 1836, to 1897, Inclusive.

1836.

MAYOR:

ELISHA BARTLETT.

ALDERMEN:

William Austin, resigned Oct. 10.
Joseph Tapley, elected November.
Seth Ames.
Aaron Mansur.
Benjamin Walker.
Oliver M. Whipple.
Alexander Wright.

SAMUEL A. COBURN, City Clerk.

COMMON COUNCIL:

John Clark, President.
Henry J. Baxter.
Jonathan Bowers.
George Brownell.
James Cook.
David Dana.
Erastus Douglass.
Josiah B. French.
Cyril French.
Samuel Garland
Horatio W. Hastings.
Horace Howard.
Stephen Mansur.
John Mixer.
Thomas Nesmith.
David Nourse.
Thomas Ordway.
James Russell.
John A. Savels.
Sidney Spalding.
Weld Spalding.
Jonathan Tyler.
Tappan Wentworth.
William Wyman.

GEORGE WOODWARD, Clerk, died. ALBERT LOCKE, elected.

1837.

MAYOR:

ELISHA BARTLETT, † '36.

ALDERMEN:

Seth Ames, *'36.
John Aiken.
Seth Chellis
Joseph G. Kittredge.
Joshua Swan.
Alexander Wright, *'36.

SAMUEL A. COBURN, City Clerk.

COMMON COUNCIL:

WARD 1.

Joshua Abbott.
James K. Fellows.
Jesse Phelps.
Walter Wright.

WARD 2.

William Fiske.
Thomas Nesmith, '36.
Josiah Osgood.
Joseph Tyler.

WARD 3.

Joseph M. Dodge.
Elisha Huntington, President.
William North.
Joseph Tapley.

WARD 4.

William Baker.
Elijha M. Read.
Charles H. Wilder.
William W. Wyman.

WARD 5.

George Brownell, '36.
Osgood Dane.
James Russell, '36.
Tappan Wentworth, '36.

WARD 6.

Andrew Bird.
Benjamin H. Gage.
Jona. T. P. Hunt.
Abram Tilton.

ALBERT LOCKE, Clerk.

The figures without other marks indicate membership of the Common Council those years. † Mayor that year. * Alderman that year. ‡ President of the Common Council that year.

1838.

MAYOR:

LUTHER LAWRENCE.

ALDERMEN:

Benjamin F. French.
Charles L. Tilden.
Oliver M. Whipple, *'36.
George H. Carleton.
George Brownell, '36, '37.
Seth Chellis, *'37.

THOMAS ORDWAY, City Clerk.

COMMON COUNCIL:

WARD 1.

Jesse Phelps, '37.
Walter Wright, '37.
Eliphalet Brown.
Perez Fuller.

WARD 2.

William Fiske, '37.
Aaron H. Sherman.
William Upham.
Henry J. Baxter, '36.

WARD 3.

Thomas Hopkinson.
Elisha Huntington, ‡ '37, President.
Horace Howard, '36.
John Mixer, '36.

WARD 4.

David Dana, '36.
Perley Hale.
Benjamin Walker, *'36.
William Baker, 37.

WARD 5.

Garret J. Bradt.
Benjamin Wilde.
Erastus Douglass, '36.
Rufus Paul.

WARD 6.

Eli Cooper.
Thomas L. Randlett.
James L. Foot.
Calvin Goodspeed.

ALBERT LOCKE, Clerk.

1839.

MAYOR:

LUTHER LAWRENCE.—[Died in April.]

ELISHA HUNTINGTON, ‡ '37, ‡ '38.

ALDERMEN:

Benjamin F. French, *'38.
John O. Green.
Charles L. Tilden, *'38.
George H. Carleton, *'38.
John Clark, ‡ '36.
Oliver M. Whipple, * 36, *'38.

THOMAS ORDWAY, City Clerk.

COMMON COUNCIL:

WARD 1.

Walter Wright, '37, '38.
Harlin Pillsbury.
Eliphalet Brown, '38.
Forrest Eaton.

WARD 2.

Jonathan Tyler, '36.
John Nesmith.
Henry J. Baxter, '36, '38.
Jefferson Bancroft.

WARD 3.

Thomas Hopkinson, '38, President.
Jacob Robbins.
John G. Locke.

WARD 4.

Benjamin Walker, *'36, '38.
Samuel Horn.
Stephen Carleton.
Stephen Mansur, '36.

WARD 5.

Tappan Wentworth, '36, '37.
Lewis McIntire, died Feb., 1840.
Benjamin Wilde, '38.
Garret J. Bradt, '38.

WARD 6.

Thomas L. Randlett, '38.
Joseph S. Holt.
John L. Fitts.
Daniel Knapp.

ALBERT LOCKE, Clerk.

1840.

MAYOR:

ELISHA HUNTINGTON, ‡ '37, ‡ '38, † '39.

ALDERMEN:

Jonathan Tyler, '36, '39.
John R. Adams.
Joseph Bedlow.
Harlin Pillsbury, '39.
Seth Ames, *'36, *'37.
Stephen Mansur, '36, '39.

THOMAS ORDWAY, City Clerk.

COMMON COUNCIL:

WARD 1.

Forrest Eaton, '39.
Sylvanus Adams.
Henry Patch.
R. M. Hutchinson.

WARD 2.

Jefferson Bancroft, '39.
John Nesmith, '39.
Joseph G. Kittredge, *'37.
Josiah Osgood, '37.

WARD 3.

Pelham W. Warren, President.
Abner W. Buttrick.
Asa Hall.
Samuel Burbank.

WARD 4.

Ferdinand Rodliff.
Ethan Burnap.
Edward F. Watson.
B. Walker, *'36, '38, '39, died Sept.

WARD 5.

Tappan Wentworth, '36, '37, '39.
Samuel W. Brown.
John J. Crane.
George Dane.

WARD 6.

Daniel Knapp, '39.
George L. Fitts, '39.
Joseph Battles.
Joshua Converse.

ALBERT LOCKE, Clerk, died October. JOHN G. LOCKE, elected October.

1841.

MAYOR:

ELISHA HUNTINGTON, ‡ '37, ‡ '38, † '39, † '40.

ALDERMEN:

Seth Chellis, *'37, '38.
Jefferson Bancroft, '39, '40.
Cyril French, '36.
George H. Carleton, *'38, *'39.
John R. Adams, *'40.
John Aiken, *'37.

THOMAS ORDWAY, City Clerk.

COMMON COUNCIL:

WARD 1.

Henry Patch, '40.
George Bragdon.
John W. Holland.
Arnold Welch.

WARD 2.

William Fiske, '37, '38.
Erasmus D. Leavitt.
Jonathan White.
Nathaniel Wilson.

WARD 3.

Samuel Burbank, '40.
Nathaniel Critchett.
Royal Southwick.
Edward Winslow.

WARD 4.

Ethan Burnap, '40.
William Livingston.
John Morrison.
Edward F. Watson, '40.

WARD 5.

Tappan Wentworth, '36, '37, '39, '40, Pres.
Samuel W. Brown, '40.
John J. Crane, '40.
Phineas Whiting.

WARD 6.

Francis H. Bowers.
Isaac H. Cooper.
William Potter.
John Smith.

JOHN G. LOCKE, Clerk.

1842.

MAYOR:

NATHANIEL WRIGHT.

ALDERMEN:

Nathaniel Thurston.
Jefferson Bancroft, '39, '40, '41.
Cyril French, '36, *'41.
William Livingston, '41.
Ithamar A. Beard.
John W. Graves.

THOMAS ORDWAY, City Clerk.

COMMON COUNCIL:

WARD 1.

Jeremiah P. Jewett.
John Hadley.
James Townsend.
Edward J. Payne.

WARD 2.

John Nesmith, '39, '40.
Erasmus D. Leavit, '41.
Joseph W. Mansur, President.
James Hopkins.

WARD 3.

Nathaniel Critchett, '41.
Ira Spalding.
John Mead.
Asa W. Willoughby.

WARD 4.

John Morrison, '41.
William Carlton.
Oliver March.
Josiah B. French, '36.

WARD 5.

James Patterson.
Isaac Appleton.
Josiah Seavey.
Roswell Douglass.

WARD 6.

James Russell, '36, '37.
Jonathan Kendall.
Varnum A. Shed.
Isaac N. Fitts.

JOHN G. LOCKE, Clerk.

1843.

MAYOR:

NATHANIEL WRIGHT, † '42.

ALDERMEN:

Harlin Pillsbury, '39, *'40, res'd June.
Henry C. Johnson.
Cyril French, '36 *'41, *'42.
S. Spalding, '36, res'd in June.
Joseph Griffin.
Charles L. Tilden, *'38, '39.

THOMAS ORDWAY, City Clerk.

COMMON COUNCIL:

WARD 1.

Daniel Bixby.
Edward J. Payne, '42.
Hugh Commiskey.
Walter Wright, '37, '38, '39.

WARD 2.

Henry J. Baxter, '36, '38, '39.
John P. Simonds.
Pliny Lawton.
Ben Osgood.

WARD 3.

John Mead, '42.
Willard Brown.
Ira Spalding, '42.
Benjamin J. Gerrish.

WARD 4.

Otis Allen.
Alfred Gilman.
Oliver March, '42, President.
William Carlton, '42.

WARD 5.

James Patterson, '42.
David Bradt.
John L. Tripp.
Benjamin F. Holden.

WARD 6.

John B. McAlvin.
Cyrus Battles.
Sewall G. Mack.
Charles F. Mitchell.

JOHN G. LOCKE, Clerk.

1844.

MAYOR:

ELISHA HUNTINGTON, ‡ '37, ‡ '38, † '39, † '40, † '41.

ALDERMEN:

Henry Smith.
Selwin Bancroft,
O. M. Whipple, *'36, *'38, *'39.
Edward F. Watson, '40, '41.
Joseph Griffin, *'43.
John Wright.

THOMAS ORDWAY, City Clerk.

COMMON COUNCIL:

WARD 1.

Forrest Eaton, '39, '40.
Gilman N. Nichols.
Hugh Cummiskey, '43.
David Healey.

WARD 2.

John P. Simonds, '43.
Ben Osgood, '43.
Amos Merriam.
John Clark, ‡ '36, *'39, President.

WARD 3.

Charles B. Coburn.
George Choate.
Isaac Scripture.
William C. Gray.

WARD 4.

Asa Wetherbee.
Abner W. Buttrick, '40.
Horatio G. F. Corliss.
Charles H. Wilder, '37.

WARD 5.

John L. Tripp, '43.
David Bradt, '43.
John Wright.
Nathaniel Wright, Jr.

WARD 6.

Sewall G. Mack, '43.
James Russell, '36, '37, '42.
Jonathan Kendall, 42.
Gilman Gale.

JOHN G. LOCKE, Clerk.

1845.

MAYOR:

ELISHA HUNTINGTON, ‡ '37, ‡ '38, † '39, † '40, † '41, † '44.

ALDERMEN:

Henry Smith, *'44.
Selwin Bancroft, *'44.
O. M. Whipple, *'36, *'38, *'39, *'44.
Edward F. Watson, '40, '41, '44.
John C. Dalton.
Daniel Knapp, '39.

THOMAS ORDWAY, City Clerk.

COMMON COUNCIL:

WARD 1.

Gilman N. Nichols, '39.
Danforth P. Brigham.
Jonathan Adams.
Willard C. Welch.

WARD 2.

John P. Simonds, '43, '44.
Daniel Balch.
William Brown.
Daniel S. Richardson, President.

WARD 3.

Isaac Scripture, '44.
William C. Gray, '44.
George Choate, '44.
Hapgood Wright.

WARD 4.

Abner, W. Buttrick, '40 '44.
Asa Wetherbee, '44.
Charles H. Wilder, '37, '44.
Josiah Sawtell.

WARD 5.

Nathaniel Wright, Jr., '44.
Amos Hyde.
Edward Sherman.
James Fenno.

WARD 6.

Gilman Gale, '44.
John B. McAlvin, '43.
Samuel Fay, Jr.
Lorenzo P. Wright.

JOHN G. LOCKE, Clerk.

1846.

MAYOR:

JEFFERSON BANCROFT, '39, '40, *'41, *'42.

ALDERMEN:

Henry Smith, *'44, *'45.
Selwin Bancroft, *'44, *'45.
William C. Gray, '44, '45.
Joseph Butterfield.
John C. Dalton, '45.
D. Knapp, '39, *'45, resigned in July.
Isaac Corper, '41, elected in August.

THOMAS ORDWAY, City Clerk.

COMMON COUNCIL:

WARD 1.

Gilman N. Nichols, '39, '45.
Danforth P. Brigham, '45.
Willard C. Welch, '45.
Thomas S. Hutchinson.

WARD 2.

Daniel Balch, '45.
William Brown, 45
Daniel S. Richardson, ‡'45, President.
Zadock Rogers.

WARD 3.

Hapgood Wright, '45.
Isaac Farrington.
Joel Powers.
Franklin Mead.

WARD 4.

Josiah Sawtell, '45.
Solon Stevens.
David J. Moody.
William Fletcher.

WARD 5.

Amos Hyde, '45.
Horatio G. F. Corliss, '44.
Jonathan Bowers, '36.
Charles M. Short.

WARD 6.

Lorenzo P. Wright, '45.
John L. Fitts, '39, '40.
Lewis Packard.
Columbus J. Hubbard.

JOHN G. LOCKE, Clerk.

1847.

MAYOR:

JEFFERSON BANCROFT, '39, '40, *'41, *'42, †'46.

ALDERMEN:

George Bragdon.
Joseph Butterfield, *'46.
Linus Child.
James Fenno, '45.
Elisha Huntington, ‡'37, ‡'38, †'39, †'40, †'41, †'44, †'45.
Sewall G. Mack, '43, '44.
Stephen Mansur, '36, '39, *'40.
Josiah Sawtell, '45, '46.

THOMAS ORDWAY, City Clerk.

COMMON COUNCIL:

WARD 1.

William Conihe.
James C. Crombie.
David S. Bachelder,
Jesse Huse.

WARD 2.

Samuel W. Brown, '40, '41.
Hannibal Powers.
William Newman.
Otis L. Allen.

WARD 3.

Joel Powers, '46.
Franklin Mead, '46.
Isaac Farrington, '46.
Samuel G. Davis.

WARD 4.

Joel Adams, President.
Horatio Fletcher.
Solon Stevens, '46.
Stephen A. Coburn.

WARD 5.

Ignatius Tyler.
Edward C. Johnson.
Elihu Gates.
Charles M. Short, '46.

WARD 6.

Thomas Wentworth.
Isaac N. Parker.
John R. Southwick.
Isaiah Morse.

JOHN G. LOCKE, Clerk.

1848.

MAYOR:

JEFFERSON BANCROFT, '39, '40, *'41, *'42, † '46, † '47.

ALDERMEN:

David Dana, '36, '38.
Erastus Douglass, '36, '38.
Jacob Graves, resigned in June.
William Newman, '47.
Gilman N. Nichols, '39, '45, '46.
Daniel S. Richardson, ‡ '45, ‡ '46.
Josiah Sawtell, '45, '46, *'47.
O. M. Whipple, *'36, *'38, *'39, *'45.

THOMAS ORDWAY, City Clerk.

COMMON COUNCIL:

WARD 1.

William Conihe, '47.
James C. Crombie, '47.
Jesse Huse, '47.
Gerry Wilson.

WARD 2.

Otis L. Allen, '47.
William H. Flagg.
John Nesmith, '39, '40, '42.
Hannibal Powers, '47.

WARD 3.

Alfred Gilman, '43.
Thomas Hopkinson, '38, '39, President.
Ransom Reed.
Nathaniel Critchett, '41, '42.

WARD 4.

John Avery.
Otis Allen, '43.
Abiel Rolfe.
Horace Howard, '36, '38.

WARD 5.

Ignatius Tyler, '47.
Elihu Gates, '47.
Edward C. Johnson, '47.
Charles M. Short, '46, '47.

WARD 6.

Thomas Wentworth, '47.
Isaac N. Parker, '47.
Jeremiah M. Currier.
Horace Parmenter.

JOHN G. LOCKE, Clerk.

1849.

MAYOR:

JOSIAH B. FRENCH, '36, '42.

ALDERMEN:

James B. Francis.
Cyril French, '36, *'41, *'42, *'43.
James H. B. Ayer.
Daniel D. Crombie.
Daniel Carter.
George Brownell, '36, '37, *'38.
Artemas L. Brooks.
Joseph Bedlow, *'40.

THOMAS ORDWAY, City Clerk.

COMMON COUNCIL:

WARD 1.

Jesse Huse, '47, '48, resigned in February.
William A. Richardson, elected in March.
Gerry Wilson, '48.
John W. Smith.
Alfred S. Saunders.

WARD 2.

William H. Flagg, '48.
Ivers Taylor.
Isaac S. Morse, resigned.
Ambrose Lawrence.

WARD 3.

Alfred Gilman, '43, '48.
Elisha Davis.
James Dinsmoor.
Andrew C. Wheelock.

WARD 4.

Nathaniel B. Favor.
Caleb Crosby.
Ezekiel Wright.
Waldo A. Fisher.

WARD 5.

Maynard Bragg.
Joshua Decatur.
Abram T. Melvin.
W. W. Morse.

WARD 6.

William Lamson, Jr.
Jeremiah M. Currier, '48.
George S. Wright.
John Aiken, *'37, *'41, President.

GEORGE A. BUTTERFELD, Clerk.

1850.

MAYOR:

JOSIAH B. FRENCH, '36, '42, † '49.

ALDERMEN:

James H. B. Ayer, *'49.
Joseph Bedlow, *'40, *'49.
Daniel D. Crombie, *'49.
James B. Francis, *'49.
Philip Hardy.
John Mixer, '36, '38.
Josiah G. Peabody.
James Townsend, '42.

THOMAS ORDWAY, City Clerk.

COMMON COUNCIL:

WARD 1.

John W. Smith, '49.
Daniel R. Kimball.
James Watson.
Jonathan Smothers.

WARD 2.

Ivers Taylor, '49, President.
George Gardner.
Samuel Lawrence, 2d.
Samuel J. Varney.

WARD 3.

Jonathan Page.
John Tripp.
Fordyce Coburn.
Joshua Merrill.

WARD 4.

Abner W. Buttrick, '40, '44, '45.
Caleb Crosby, '49.
Benjamin Goddard.
Nathaniel B. Favor, '49.

WARD 5.

George P. Elliot.
William Fiske, '37, '38, '41.
George W. Worthen.
Maynard Bragg, '49.

WARD 6.

Albert Mallard.
Stephen P. Sargent.
George S. Wright, '49.
Wm. Lampson, Jr., '49, resigned in May.

GEO. A. BUTTERFIELD, Clerk, res'd May. WM. LAMSON, JR., elected May.

1851.

MAYOR:

JAMES H. B. AYER, *'49, *'50.

ALDERMEN:

William Fiske, '37, '38, '41, '50.
Ambrose Lawrence, '49.
James Townsend, '42, *'50.
Philip Hardy, *'50.
William North, '37.
Abiel Rolfe, '48.
Lucius A. Cutler.
Joshua Converse, 40.

THOMAS ORDWAY, City Clerk.

COMMON COUNCIL:

WARD 1.

James Watson, '50.
Jonathan Smothers, '50.
Charles B. Coburn, '14.
Stephen Moar.

WARD 2.

Linus Child, *'47.
George Gardner, '50, President.
Samuel J. Varney, '50.
Zachariah B. Caverly.

WARD 3.

Fordyce Coburn, '50.
William Twichell.
Darius C. Brown.
Benjamin C. Sargeant.

WARD 4.

Benjamin Goddard, '50.
Richard Dennis.
Holland Streeter.
Solomon D. Emerson.

WARD 5.

George P. Elliot, '50.
Edward Fifield.
John N. Ford.
Theodore H. Sweetser.

WARD 6.

George W. Worthen, '50.
George W. Jones, died in September.
Stephen P. Sargent, '50.
Albert Mallard, '50.

WILLIAM LAMSON, JR., Clerk,

1852.

MAYOR:

ELISHA HUNTINGTON, ‡ '37, ‡ '38, † '39, † '40, † '41, † '44, † '45, *'47.

ALDERMEN:

Joseph Bedlow, *'40, *'49, *'50.
Joseph M. Bullens.
Samuel Burbank, '40, '41.
Joseph B. V. Coburn.
Wm. Fiske, '37, '38, '41, '50, *'51.
William North, '37, *'51.
Alpha Stevens.
Samuel J. Varney, '50, '51.

THOMAS ORDWAY, City Clerk.

COMMON COUNCIL:

WARD 1.

Rufus Rogers.
John C. Smith.
Jeremiah Clark.
Paul Hill.

WARD 2.

Paul Perkins.
Milton Bonney.
William Hovey.
Zachariah B. Caverly, '51.

WARD 3.

Darius C. Brown, '51.
William Twichell, '51.
Benjamin C. Sargeant, '51, President.
Michael B. Caswell.

WARD 4.

Holland Streeter, '51.
Elbridge Livingston.
Abram French.
Willard Minot.

WARD 5.

Edward Fifield, '51.
Phineas Whiting, '41.
George W. Patterson.
Jonathan Kendall, '42, '44.

WARD 6.

Leonard W. Jaquith.
Seth Pooler.
Caleb G. Weaver.
William C. Parker.

WILLIAM LAMSON, JR., Clerk.

1853.

MAYOR:

SEWALL G. MACK, '43, '44, *'47.

ALDERMEN:

Elisha Huntington, ‡ '37, ‡ '38, † '39, † '40, † '41, † '44, † '45, *'47, † '52.
Samuel K. Hutchinson.
Stephen Mansur, '36, '39, *'40, *'47.
Joseph B. V. Coburn, *'52.
Ira Spalding, '42, '43.
Joseph M. Bullens, *'52.
Alpha Stevens, *'52.
Joseph White.

THOMAS ORDWAY, City Clerk.

COMMON COUNCIL:

WARD 1.

Rufus Rogers, '52.
John C. Smith, '52.
Marcus A. Thomas.
James Cook, '36.

WARD 2.

Paul Perkins, '52.
Milton Bonney, '52.
George G. Bumpus.
George W. Stanley.

WARD 3.

Michael B. Caswell, '52.
Calvin Philbrick.
Leonard Brown.
Henry H. Wilder.

WARD 4.

Abram French, '52.
Henry C. Howe.
Joseph S. Grush.
Samuel K. Pickering.

WARD 5.

George W. Patterson, '52.
William A. Richardson, '49, President.
Patrick Conlan.
Jonathan Bowers.

WARD 6.

Caleb G. Weaver, '52.
William C. Parker, '52.
George F. Woods.
C. F. Blanchard.

WILLIAM LAMSON, JR., Clerk.

1854.

MAYOR:

SEWALL G. MACK, '43, '44, *'47, † '53.

ALDERMEN:

Elisha Huntington, †'37, ‡'38, †'39, †'40, †'41, †'44, †'45, *'47, †'52, *'53.
J. B. V. Coburn, *'52, *'53, res'd in Jan.
Samuel K. Hutchinson, *'53.
Ira Spalding, '42, '43, *'53.
Joseph White, *'53.
Horatio Fletcher, 47.
C. F. Blanchard, '53.
Charles Sperry.

WILLIAM LAMSON, JR. City Clerk.

COMMON COUNCIL:

WARD 1.

John C. Smith, '52, '53.
Paul Hill, '52.
Marcus A. Thomas, '53.
Thomas Lennon.

WARD 2.

George W. Stanley, '53.
William H. Gage.
Amos A. Taylor.
William H. Bradley.

WARD 3.

Calvin Philbrick, '53.
Leonard Brown, '53, declined.
Darius C. Brown, '51, '52, elected.
Henry H. Wilder, '53.
Peter O. C. Frawley.

WARD 4.

Henry C. Howe, '53.
Joseph S. Grush, '53.
Samuel K. Pickering, '53.
Hubbard Wilson.

WARD 5.

Wm. A. Richardson, '49, ‡ '53, President.
Jonathan Bowers, '53.
Patrick Conlan, '53.
John C. Woodward.

WARD 6.

George F. Woods, '53.
Charles S. Eastman.
Levi H. Straw.
William P. Webster.

LEONARD BROWN, Clerk.

1855.

MAYOR:

AMBROSE LAWRENCE, '49, '51.

ALDERMEN:

Wm. Fiske, '37, '38, '41, '50, *'51, '*52.
Artemas L. Brooks, *'49.
Daniel Woodward.
Lorenzo G. Howe.
Andrew T. Nute.
Abner Frost.
William S. Johnson.
Shadrach R. Brackett.

WILLIAM LAMSON, JR., City Clerk.

COMMON COUNCIL:

WARD 1.

Maynard Bragg, '49, '50.
Aaron B. Young.
Augustus B. Roby.
George L. Harris.

WARD 2.

William G. Morse.
George K. Paul.
Mark H. Cook.
Joseph A. Patten.

WARD 3.

Alfred Gilman, '43, '48, '49, President.
Daniel Hurd.
Theodore Warren.
Stephen K. Fielding.

WARD 4.

Joshua W. Daniels.
John Bennett.
Alanson Folsom.
Francis H. Nourse.

WARD 5.

John C. Woodward, '54.
Stephen Bartlett.
Jonathan Johnson.
Oliver P. Rand.

WARD 6.

Levi H. Straw, '54.
William T. Whitten.
Lucien P. Stacy.
James M. Moore.

LEONARD BROWN, Clerk.

1856.

MAYOR:

ELISHA HUNTINGTON, ‡ '37, ‡ '38, † '39, † '40, † '41, † '44, † '45, * '47, † '52, * '53, * '54.

ALDERMEN:

Edward Tuck.
Samuel Burbank, '40, '41, *'52.
Charles B. Cobnrn, '44.
William P. Webster, '54.
Hapgood, Wright, '45, '46.
Charles H. Wilder, '37, '44, '45.
O. J. Conant, resigned in March.
James H. Rand.
Jonathan Johnson, elected in June.

WILLIAM LAMSON, JR., City Clerk.

COMMON COUNCIL:

WARD 1.

Enos O. Kingsley.
Abiel Pevey.
David M. Collins.
Marshall E. Thompson.

WARD 2.

Isaac Hinckley.
Seth Gage.
Peter Flanders, Jr.
Leonard F. Jewell.

WARD 3.

David Rogers.
Benj. C. Sargeant, '51, ‡ '52, President.
Henry H. Carroll.
Peter Powers.

WARD 4.

Francis H. Nourse, '55.
Alden B. Buttrick.
Holland Streeter, '51, '52.
James Sands.

WARD 5.

Frederick Holton.
Isaac Place.
Albert Wheeler.
Abiel Rolfe, '48, *'51.

WARD 6.

Eliphalet Hills.
Jonathan P. Folsom.
James K. Fellows, '37.
John K. Chase.

JAMES J. MAGUIRE, Clerk.

1857.

MAYOR:

STEPHEN MANSUR, '36, '39, * '40, * '47, * '53.

ALDERMEN:

Andrew T. Nute, *'55.
John C. Woodward, '54, '55.
Jonathan Smothers, '50, '51.
Samuel W. Stickney.
John B. Tuttle.
Francis H. Nourse, '55, '56.
Jonathan Johnson, '55, *'56.
John Nesmith, '39, '40, '42, '48.

WILLIAM LAMSON, JR., City Clerk.

COMMON COUNCIL:

WARD 1.

Abiel Pevey.
Stephen T. Stanley.
Charles A. Welch.
George F. Scribner.

WARD 2.

William G. Morse, '55.
William D. Vinall.
Temple Tebbetts.
James M. Howe.

WARD 3.

Benjamin C. Sargeant, '51, ‡ '52, ‡ '56.
David Rogers, '56.
Henry H. Carroll, '56.
Nathan Allen.

WARD 4.

Caleb Crosby, '49, '50.
John F. Howe.
John C. Jepson.
Alanson Nichols.

WARD 5.

Frederick Holton, '56, President.
William H. Wiggin.
William Goodale.
Charles Hubbard.

WARD 6.

Erastus Boyden.
Jonathan Kimball.
Robert J. Garrett.
William Nichols.

HENRY A. LORD, Clerk.

1858.

MAYOR:

ELISHA HUNTINGTON, ‡ '37, ‡ '38. † '39, † '40, † '41, † '44, † '45, * '47, † '52, * '53, * '54, † '56.

ALDERMEN:

Sewall G. Mack, '43, '44, *'47, † '53, † '54.
Samuel W. Stickney, *'57.
Abiel Pevey, '56, '57.
Jeremiah P. Jewett, 42.
Joseph M. Dodge, '37.
Harvey Silver.
Albert Wheeler, '56.
Edwin A. Alger.

JOHN H. MCALVIN, City Clerk.

COMMON COUNCIL:

WARD 1.

Charles Wilkins.
John M. Maynard.
John E. Webb.
William Barnard.

WARD 2.

Edward Tuck, *'56.
William P. Webster, '54, *'56.
Andrew Blood.
William F. Salmon.

WARD 3.

Benjamin C. Sargeant, '51, ‡ '52, ‡ '56, '57, President.
Hanover Dickey.
Joseph A. Brabrook.
Benjamin S. Butterworth.

WARD 4.

Enoch P. Young.
Zephaniah Goward.
Jesse Blake.
John F. Howe, '57.

WARD 5.

Willard Dudley.
Samuel T. Manahan.
Isaac Page.
John Avery, 2d.

WARD 6.

William Nichols, '57.
Alpha B. Farr, resigned in January.
Leonard Brown, '53, '54, elected in Feb.
Erastus Boyden, '57.
James H. Rand, *'56, resigned in May.
Eben'r Burgess, elected in June.

GEORGE GARDNER, Clerk.

1859.

MAYOR:

JAMES COOK, '36, '53.

ALDERMEN:

Lorenzo G. Howe, *'55.
Samuel J. Varney, '50, 51, *'52.
Paul Hill, '52, '54.
Ambrose Lawrence, '49, '51, † '55, resigned in April.
Darius C. Brown, '51, '52.
John F. Howe, '57, '58.
Joshua Converse, '40, *'51, res'd in April.
J. P. Folsom, '56, resigned in April.
Edward Tuck, *'56, '58, elected in May.
Samuel T. Manahan, '58, elected in May.
Jonathan Ladd, elected in May.

JOHN H. MCALVIN, City Clerk.

COMMON COUNCIL:

WARD 1.

John E. Webb, '58.
Charles Wilkins, '58.
William Barnard, '58.
William D. Blanchard.

WARD 2.

W. P. Webster, '54, *'56, '58, President.
William F. Salmon, '58.
James M. Howe, '57.
David Nichols.

WARD 3.

George Hobson.
Asahel D. Puffer.
John Willoughby.
Benjamin S. Butterworth, '58.

WARD 4.

Caleb Crosby, '49, '50, '57.
Jesse Blake, '58.
George W. Partridge.
George W. Young.

WARD 5.

Horatio G. F. Corliss, '44, '46.
Luther B. Morse.
Josiah G. Peabody, *'50.
William Goodale, '57.

WARD 6.

Charles A. Stott.
Levi Sprague.
Ebenezer Burgess, '58.
Leonard Brown, '53, '54, '58.

GEORGE GARDNER, Clerk.

1860.

MAYOR:

BENJAMIN C. SARGEANT, '51, ‡ '52, ‡ '56, '57, ‡ '58.

ALDERMEN:

Edward F. Watson, '40, '41, *'44, *'45.
Lorenzo G. Howe, *'55, *'59.
James Watson, '50, '51.
William G. Morse, '55, '57.
Henry H. Wilder, '53, '54.
Abner Frost, *'55.
Samuel T. Manahan, '58, *'59.
William S. Gardner.

JOHN H. McALVIN, City Clerk.

COMMON COUNCIL:

WARD 1.

Benjamin S. Ireson.
Enoch Quimby.
John P. Slocum.
Amos H. Foster.

WARD 2.

Henry P. Clough.
Alfred S. Saunders, '49.
Wm. F. Salmon, '58, '59, President.
Joseph L. Sargent.

WARD 3.

George Hobson, '59.
Josiah B. Fielding.
Henry P. Perkins.
Hocum Hosford.

WARD 4.

George W. Partridge, '59.
George W. Young, '59.
Morrill M. Bohonan.
Caleb Crosby, '49, '50, '57, '59.

WARD 5.

Josiah G. Peabody, *'50, '59.
Sullivan L. Ward.
George F. Morey.
William H. Lamson.

WARD 6.

William Nichols, '57, '58.
Samuel T. Lancaster.
Charles A. Stott, '59.
Foster Nowell.

GEORGE GARDNER, Clerk.

1861.

MAYOR:

BENJAMIN C. SARGEANT, '51, ‡ '52, ‡ '56, '57, ‡ '58, † '60.

ALDERMEN:

Samuel T. Manahan, '58, *'59, *'60.
Jonathan P. Folsom, '56, *'59.
James Watson, '50, '51, *'60.
William G. Morse, '55, '57, *'60.
Hocum Hosford, '60.
Aldis L. Waite.
David Whitney, declined acceptance.
Sager Ashworth, elected in May.
William S. Gardner, *'60.

JOHN H. McALVIN, City Clerk.

COMMON COUNCIL:

WARD 1.

Frank E. Jewett.
M. Gilbert Perkins.
Jacob Baron.
William D. Blanchard, '59.

WARD 2.

Alfred S. Saunders, '49, '60.
Joseph L. Sargent, '60.
Henry P. Clough, '60.
Henry S. Orange.

WARD 3.

William L. North, President.
George W. Norris.
Henry P. Perkins, '60.
James G. Morrison.

WARD 4.

Joseph Cater.
Joseph B. Keyes.
Morrill M. Bohonan, '60.
Abel M. Ayer.

WARD 5.

Sullivan L. Ward, '60.
Samuel Beck.
William H. Parker.
George F. Morey, '60.

WARD 6.

Samuel T. Lancaster, '60.
Foster, Nowell, '60.
Elon A. Sanborn.
George E. Dana.

GEORGE GARDNER, Clerk.

1862.

MAYOR:

HOCUM HOSFORD, '60, *'61.

ALDERMEN:

Mertoun C. Bryant.
Edwin A. Alger, *'58.
James B. Francis, *'49, *'50.
William A. Burke.
Isaac F. Scripture.
Aldis L. Waite, *'61.
Albert Wheeler, '56, *'58.
Jona. P. Folsom, '56, *'59, *'61.

JOHN H. MCALVIN, City Clerk.

COMMON COUNCIL:

WARD 1

Amos D. Wright.
Frank E. Jewett, '61.
Horatio G. Burgess.
Charles F. Hard.

WARD 2.

Benedict O. Carpenter.
William T. McNeill.
Lorenzo G. Howe, *'55, *'58, *'60.
Henry S. Orange, '61.

WARD 3.

George W. Norris, '61.
Edmund D. Fletcher.
Everett W. French.
John Quinn.

WARD 4.

Joseph B. Keyes, 61.
George Runels.
John Pettingell.
Hubbard Willson, '54.

WARD 5.

Rollin C. Downs.
Albert Mallard, '50, '51.
Edward Fifield, '51, '52.
Cleveland J. Cheney.

WARD 6.

George F. Richardson, President.
Albion J. Dudley.
Elon A. Sanborn, '61.
Frederick Frye.

GEORGE GARDNER, Clerk.

1863.

MAYOR:

HOCUM HOSFORD, '60, *'61, † '62.

ALDERMEN:

James B. Francis, *'49, *'50. *'62.
Edwin A. Alger, *'58, *'62.
Abiel Pevey, '56, '57, *'58.
William A. Burke, *'62.
Isaac F. Scripture, *'62.
Otis Allen, '43, '48.
Albert Wheeler, '56, *'58, *'62.
William Nichols, '57, '58, '60.

JOHN H. MCALVIN, City Clerk.

COMMON COUNCIL:

WARD 1.

Charles F. Hard, '62.
Amos D. Wright, '62.
John Cosgrove.
William A. Wright.

WARD 2.

George F. Sawtell.
Henry S. Orange, '61, '62.
Hugh McEvoy.
Nathaniel Stearns.

WARD 3.

Everett W. French, '62.
Fordyce Coburn, '50, '51.
Edmund D. Fletcher, '62.
John Quinn, 62.

WARD 4.

Atwell F. Wright.
Josiah Gates.
William Stafford.
John McCann.

WARD 5.

James C. Ayer.
Charles W. Saunders.
Cyrus H. Latham.
John E. Downs.

WARD 6.

George F. Richardson, ‡ '62, President.
Albion J. Dudley, '62.
Benedict O. Carpenter, '62.
Frederick Frye, '62.

GEORGE GARDNER, Clerk.

1864.

MAYOR:

HOCUM HOSFORD, '60, * '61, † '62, † '63.

ALDERMEN:

William S. Southworth.
James B. Francis, *'49, *'50, *'62, *'63.
Dana B. Gove.
William T. McNeill, '62.
George W. Norris, '61, '62.
George Runels, '62.
Cyrus H. Latham, '63.
George F. Richardson, ‡ '62, ‡ '63.

JOHN H. McALVIN, City Clerk.

COMMON COUNCIL:

WARD 1.

Alden B. Watson.
Lewis L. Perrin.
Frederick S. Tukey.
John Cosgrove, '63.

WARD 2.

George Ripley, President.
Andrew F. Jewett.
Artemas S. Young.
Hoyt W. Hilton.

WARD 3.

Samuel N. Wood.
Charles W. Dodge.
Joseph S. Pollard.
James G. Morrison, '61.

WARD 4.

Atwell F. Wright, '63.
Daniel Churchill.
William W. Sherman.
Francis Jewett.

WARD 5.

John E. Downs, '63.
Thomas G. Gerrish, resigned June 14.
Charles Hubbard, '57.
Cleveland J. Cheney, '62.

WARD 6.

Levi Sprague, '59.
Tobias L. P. Lamson.
Addison Putnam.
Albion J. Dudley, '62, '63.

GEORGE GARDNER, Clerk.

1865.

MAYOR:

JOSIAH G. PEABODY, * '50, '59, '60.

ALDERMEN:

Ew'd F. Watson, '40, '41, *'44, *'45, *'60.
George W. Norris, '61, '62. *'64.
Dana B. Gove, *'64.
William T. McNeill, '62, *'64.
Henry H. Wilder, '53, '54, *'60.
Josiah Gates, '63.
Cyrus H. Lathan, '63, *'64.
William Brown, '45, '46.

JOHN H. McALVIN, City Clerk.

COMMON COUNCIL:

WARD 1.

Alden B. Watson, '64.
Lewis L. Perrin, '64.
George N. Osgood.
John R. Southwick, '47.

WARD 2.

George Ripley, ‡ '64, President.
Andrew F. Jewett, '64.
Julian V. Keyes.
Chester W. Rugg.

WARD 3.

Joseph S. Pollard, '64.
Charles W. Dodge, '64.
Edward C. Rice.
Frederick T. North.

WARD 4.

Francis Jewett, '64.
Benjamin Walker.
Benjamin L. Googins.
John Pearson.

WARD 5.

Charles Hubbard, '57, '64.
James Kent.
Simeon D. Osterhoudt.
James Foster.

WARD 6.

Tobias L. P. Lamson, '64.
Luke C. Dodge.
Gustavus A. Gerry.
James M. Moore, '55.

GEORGE GARDNER, Clerk.

1866.

MAYOR:

JOSIAH G. PEABODY, *'50, '59, '60, † '65.

ALDERMEN:

Samuel A. Brown.
Albert B. Plimpton.
John R. Southwick, '47, '65.
Joseph L. Sargent, '60, '61.
Charles W. Dodge, '64, '65.
Josiah Gates, '63, *'65.
Henry M. Hooke.
Albion J. Dudley, '62, '63, '64.

JOHN H. MCALVIN, City Clerk.

COMMON COUNCIL:

WARD 1.

William A. Hodge.
William A. Wright, '63.
Jacob Baron, '61.
Rollin C. Downs, '62.

WARD 2.

Andrew F. Jewett, '64, '65.
George H. Whitmore.
Julian V. Keyes, '65.
Chester W. Rugg, '65.

WARD 3.

Edward C. Rice, '65.
Frederick T. North, '65.
James N. Pinkham.
Oliver W. Smith.

WARD 4.

Benjamin L. Googins, '65.
Alfred Scott.
Thomas F. Burgess.
Benjamin Walker, '65.

WARD 5.

Robert H. Butcher.
John T. Lee.
George L. Huntoon.
Jonathan Johnson, '55, *'56, *'57.

WARD 6.

Gustavus A. Gerry, '65, President.
Luke C. Dodge, '65.
Charles A. Kimball.
Alfred H. Chase.

GEORGE GARDNER, Clerk.

1867.

MAYOR:

GEORGE F. RICHARDSON, ‡ '62, ‡ '63, *'64.

ALDERMEN:

Charles B. Coburn, '44, '51, *'56.
Hocum Hosford, '60, *'61, † '62, † '63, † '64,
John R. Southwick, '47, '65, *'66.
Joseph L. Sargent, '60, '61, *'66.
Edward C. Rice, '65, '66.
Abner W. Buttrick, '40, '44, '45, '50; died June 29, '67.
Wm. E. Livingston, elected Sept. 9, '67.
William H. Parker, '61.
Albion J. Dudley, '62, '63, '64, *'66.

JOHN H. MCALVIN, City Clerk.

COMMON COUNCIL:

WARD 1.

John Shepard.
Calvin Sawtell.
Foster Wilson.
M. Gilbert Perkins, '61.

WARD 2.

Gustavus A. Gerry, '65, ‡ '66, President.
Ruel J. Walker.
William Dobbins.
Silas Tyler, Jr.

WARD 3.

Jona. P. Folsom, '56, *'59, *'61, *'62.
Frederick T. North, '65, '66.
Samuel D. Prescott.
Nathan M. Wright.

WARD 4.

John B. Hunt.
John Q. A. Hubbard.
Alfred Scott, '66.
Thomas F. Burgess, '66.

WARD 5.

George L. Huntoon, '66.
George S. Cheney.
James Foster, '65.
John T. Lee, '66.

WARD 6.

Alfred H. Chase, '66.
James Lawton.
John N. Pierce, Jr.
Foster Nowell, '60, '61, res'd May 14, '67.
William Kittredge, elected Sept. 9, '67.

GEORGE GARDNER, Clerk.

1868.

MAYOR:

GEORGE F. RICHARDSON, ‡ '62, ‡ '63, *'64, † '67.

ALDERMEN:

Charles B. Coburn, '44, '51, *'56, *'67.
Francis Jewett, '64, '65.
John M. Pevey, resigned in July.
Charles L. Hildreth, elected in September.
Silas Tyler, Jr., '67.
Edward C. Rice, '65, '66, *'67.
William E. Livingston, *'67.
Frederic Frye, '62, '63.
Albion J. Dudley, '62, '63, '64, *'66, *'67.

JOHN H. MCALVIN, City Clerk.

COMMON COUNCIL:

WARD 1.

Calvin Sawtell, '67.
John Shepard, '67.
John F. Merrill.
Frederic T. Greenhalge.

WARD 2.

Francis D. Munn.
Joseph A. Patten, '55.
Ruel J. Walker, '67.
Henry S. Orange, '61, '62, '63.

WARD 3.

George W. Badger.
Samuel D. Prescott, '67.
William Walker.
Albert A. Haggett.

WARD 4.

William H. Anderson.
John Q. A. Hubbard, '67.
Charles T. Crane.
John B. Hunt, '67.

WARD 5.

Edwin Lamson.
George S. Cheney, '67.
William Kelley.
Ethan N. Spencer.

WARD 6.

John N. Pierce, Jr., '67.
James Lawton, '67.
Francis Brown.
Alfred H. Chase, '66, '67, President.

GEORGE GARDNER, Clerk.

1869.

MAYOR:

JONATHAN P. FOLSOM, '56, * '59, * '61, * '62, '67.

ALDERMEN:

Francis Jewett, '64, '65, *'68.
Henry H. Wilder, '53, '54, *'60, '65.
Charles L. Hildreth, *'68.
Cyrus H. Latham, '63, *'64, *'65.
Hapgood Wright, '45, '46, *'56.
John Q. A. Hubbard, '67, '68.
George S. Cheney, '67, '68.
Charles A. Stott, '59, '60.

JOHN H. MCALVIN, City Clerk. Resigned March 15, 1869.
SAMUEL A. MCPHETRES, City Clerk. Elected March 15, 1869.

COMMON COUNCIL:

WARD 1.

Frederic T. Greenhalge, '68.
John H. Durgin, Jr.
Patrick Keyes.
Benjamin Patch.

WARD 2.

Joseph A. Patten, '55, '68.
Phineas Jones.
Francis D. Munn, '68.
Amos Sanborn.

WARD 3.

George W. Badger, '68.
Albert A. Haggett, '68.
William Walker, '68.
George E. Pinkham.

WARD 4.

William H. Anderson, '68, President.
Simeon G. Lyford.
Henry P. Carter.
Epaphras A. Hill.

WARD 5.

William Kelley, '68.
Willard A. Brown.
William O. Fiske.
Edwin Lamson, '68.

WARD 6.

Francis Brown, '68.
Alpha B. Farr, '68.
Lucian P. Stacy, '55.
William Kittredge, '67.

GEORGE GARDNER, Clerk.

1870.

MAYOR:

JONATHAN P. FOLSOM, '56, *'59, *'61, *'62, '67, †'69.

ALDERMEN:

Edward F. Sherman.
Frank F. Battles.
Charles L. Hildreth, *'68, *'69.
Amos B. French.
Hapgood Wright, '45, '46, *'56, *'69.
John Q. A. Hubbard, '67, '68, *'69.
Addison Putnam, 64.
Charles A. Stott, '59, '60, *'69.

SAMUEL A. MCPHETRES, City Clerk.

COMMON COUNCIL:

WARD 1.

John H. Durgin, Jr., '69.
Benjamin Patch, '69.
Patrick Keyes, '69.
Samuel G. Ladd.

WARD 2.

Phineas Jones, '69.
John L. Moulton.
Patrick Cummiskey.
David G. Skillings.

WARD 3.

Albert A. Haggett, '68, '69, President.
Henry P. Perkins, '60, '61.
Hocum Hosford, '60, *'61, †'62, †'63, †'64, *'67, declined.
Matthew Donovan.
John L. Meadowcroft, elected Jan. 24.

WARD 4.

Epaphras A. Hill, '69.
Henry P. Carter, '69.
Simeon G. Lyford, '69.
Michael Corbett.

WARD 5.

William O. Fiske, '69.
Willard A. Brown, '69.
James D. Hartwell.
Jeremiah Crowley.

WARD 6.

Alpha B. Farr, '58, '69.
William Kittredge, '67, '69.
Lucian P. Stacy, '55, '69.
John Stott.

GEORGE GARDNER, Clerk.

1871.

MAYOR:

EDWARD F. SHERMAN, *'70.

ALDERMEN:

Frank F. Battles, *'70.
William F. Salmon, '58, '59, ‡'60.
John W. Smith, '49, '50.
Amos B. French, *'70.
Albert A. Haggett, '68, '69, ‡'70.
Henry C. Howe, '53, '54.
Frederick Ayer.
Addison Putnam, '64, *'70.

SAMUEL A. MCPHETRES, City Clerk.

COMMON COUNCIL:

WARD 1.

John H. Durgin, Jr., '69, '70.
Samuel G. Ladd, '70.
Francis N. J. Haviland.
Joel Knapp.

WARD 2.

William Dobbins, '67.
John L. Moulton, '70.
Patrick Cummiskey, '70.
Amos A. Blanchard.

WARD 3.

Henry P. Perkins, '60, '61, '70, President.
John L. Meadowcroft, '70.
Horace Ela.
Julius C. Jockow.

WARD 4.

Benjamin Walker, '65, '66.
Michael Corbett, '70.
Francis H. Chandler.
Charles T. Goddard.

WARD 5.

Jeremiah Crowley, '70.
Crawford Burnham.
Henry C. Church.
Patrick Lynch.

WARD 6.

Leonard Brown, '53, '54, '58, '59.
John Stott, '70.
Abel T. Atherton.
Nathaniel C. Sanborn.

GEORGE GARDNER, Clerk.

1872.

MAYOR:

JOSIAH G. PEABODY, *'50, '59, '60, † '65, † '66.

ALDERMEN:

Henry C. Howe, '53, '54, *'71.
Alexander G. Cumnock.
Benjamin Patch, '69, '70.
Gustavus A. Gerry, '65, ‡'66, ‡'67.
Frederick T. North, '65, '66, '67.
Benjamin Walker, '65, '66, '71.
William Kelley, '68, '69.
Alpha B. Farr, '58, '69, '70.

SAMUEL A. MCPHETRES, City Clerk.

COMMON COUNCIL:

WARD 1.

John E. Webb, '58, '59.
Alonzo F. Caswell.
Southwell Farrington.
True P. Jordan.

WARD 2.

Leonard Brown, '53, '54, '58, '59, '71.
Amos A. Blanchard, '71.
Joseph S. Brown.
Earl A. Thissell.

WARD 3.

Henry P. Perkins, '60, '61, '70, ‡'71, Pres.
Horace Ela, '71.
Julius C. Jockow, '71.
Charles F. Tilton.

WARD 4.

Nathaniel P. Favor.
Nathan W. Frye.
Henry A. Lord.
Alonzo L. Russell.

WARD 5.

Crawford Burnham, '71.
Charles F. Belden.
Luther J. Eames.
William Shepard.

WARD 6.

Abel T. Atherton, '71.
Nathaniel C. Sanborn, '71.
Samuel M. Chase.
Julian Talbot.

GEORGE GARDNER, Clerk.

1873.

MAYOR:

FRANCIS JEWETT, '64, '65, *'68, *'69.

ALDERMEN:

Jonathan P. Folsom, '56, *'59, *'61, *'62, '67, † '69, † '70.
George Runels, '62, *'64.
Edward Tuck, *'56, '58, *'59, declined.
Isaac Farrington, '46, '47, declined.
William Dobbins, '67, '71, elected Jan. 14.
Charles A. F. Swan, elected January 14.
Jacob H. Sawyer.
Jeremiah Crowley, '70, '71.
Alpha B. Farr, '58, '69, '70, *'72.
George Stevens.

SAMUEL A. MCPHETRES, City Clerk.

COMMON COUNCIL:

WARD 1.

John E. Webb, '58, '59, '72.
Alonzo F. Caswell, '72.
Frank Brady.
Stephen J. Smiley.

WARD 2.

Joseph S. Brown, '72.
Earl A. Thissell, '72.
Daniel Stickney.
Edward P. Woods.

WARD 3.

Albert A. Haggett, '68, '69, ‡'70, *'71, Pres.
Charles F. Tilton, '72, resigned March 1.
William Bass.
James Owens.
James A. Loughlin, elected April 8.

WARD 4.

Atwell F. Wright, '63, '64.
Nathaniel P. Favor, '72.
Nathan W. Frye, '72.
Henry A. Lord, '72.

WARD 5.

Robert H. Butcher, '66.
Charles F. Belden, '72.
Jared P. Maxfield.
George Smith.

WARD 6.

Nathaniel C. Sanborn, '71, '72.
Samuel M. Chase, '72.
George W. S. Hurd.
Artemas S. Tyler.

GEORGE GARDNER, Clerk.

1874.

MAYOR:

FRANCIS JEWETT, '64, '65, *'68, *'69, † '73.

ALDERMEN:

Jeremiah Crowley, '70, '71, *'73.
Benjamin Walker, '65, '66, '71, *'72.
Alonzo F. Caswell, '72, '73.
Joseph S. Brown, '72, '73.
Jonathan Kendall, '42, '44, '52.
George L. Huntoon, '66, '67.
Nathaniel C. Sanborn, '71, '72, '73.
George Stevens, *'73.

SAMUEL A. MCPHETRES, City Clerk.

COMMON COUNCIL.

WARD 1.

Charles A. Welch, '57.
Frank Brady, '73.
Stephen J. Smiley, '73.
Charles H. Harvey.

WARD 2.

Daniel Stickney, 73.
Edward P. Woods, '73.
Charles J. Eastman.
Edward E. Reed.

WARD 3.

Julius C. Jockow, '71, '72.
James Owens, '73.
James A. Loughlin, '73.
George W. Tilton.

WARD 4.

Charles T. Goddard, '71.
Nathan W. Frye, '72, '73, President.
Jacob H. Sawyer, *'73.
Julian A. Richardson.

WARD 5.

Jared P. Maxfield, 73.
John B. Lyford,
Samuel P. Marin.
John Scott.

WARD 6.

George W. S. Hurd, '73.
Joel A. Abbott.
Thomas Carolin.
Jason Fuller.

GEORGE GARDNER, Clerk, died May 29.
DAVID CHASE, Clerk, elected June 4.

1875.

MAYOR:

FRANCIS JEWETT, '64, '65, *'68, *'69, † '73, †,74.

ALDERMEN:

Benjamin Walker, '65, '66, '71, *'72, *'74.
Jacob Rogers.
John A. Goodwin.
Joseph S. Brown, '72, '73, *'74.
Hapgood Wright, '45, '46, *'56, *'69.
James Owens, '73, '74.
Alden B. Richardson.
Samuel A. Chase.

SAMUEL A. MCPHETRES, City Clerk.

COMMON COUNCIL:

WARD 1.

Charles A. Welch, '57, '74.
Charles H. Harvey, '74.
John F. Howard.
John W. Welch.

WARD 2.

Earl A. Thissell, '72, '73.
Edward E. Reed, '74.
William A. Read.
Leavitt R. J. Varnum.

WARD 3.

Albert A. Haggett, '68, '69, ‡ '70, *'71.
George W. Tilton, '74. [‡ '73, Pres.
Charles Cowley.
Thomas R. Garity.

WARD 4.

Josiah Butler.
Francis Carll.
Edward P. Dennis.
Edward Stockman.

WARD 5.

James D. Hartwell, '70.
John B. Lyford, '74.
Orford R. Blood.
Charles W. Sleeper.

WARD 6.

Joel A. Abbott, '74.
Thomas Carolin, '74.
Jason Fuller, '74.
Albert D. Wright.

DAVID CHASE, Clerk.

1876.

MAYOR:

CHARLES A. STOTT, '59, '60, * '69, * '70.

ALDERMEN:

Jacob Rogers, *'75.
John A. Goodwin, *'75.
Albert A. Haggett, '68, '69, ‡ '70, *'71,
Charles F. Belden, '72, '73.
Henry A. Hildreth.
George E. Stanley.
Francis Carll, '75.
William H. Wiggin, '57.

SAMUEL A. MCPHETRES, City Clerk.

COMMON COUNCIL:

WARD 1.

John W. Welch, '75.
Lewis Stiles.
Daniel W. Manning.
David M. Collins, '56, declined.
John F. Howard, 75, elected January 11.

WARD 2.

Leavitt R. J. Varnum, '75.
Charles E. Hallowell.
Charles Callahan.
William A. Read, '75.

WARD 3.

Charles Cowley, '75.
Charles H. Kimball.
Charles Runels.
James Howard, died after election.
William H. Grady, elected January 11.

WARD 4.

Edward Stockman, '75, resigned May 23.
Gardner W. King.
Stephen H. Jones.
Charles D. Starbird.
James W. Bennett, elected June 22.

WARD 5.

Orford R. Blood '75.
John F. Kimball, President from May 23.
Charles H. Hanson.
M. Gilbert Perkins, '61, '67.

WARD 6.

Edwin Sanborn.
Benjamin C. Dean, Pres., resig'd May 23.
Charles H. Walker.
John J. Pickman.
Willis Farrington, elected June 22.

DAVID CHASE, Clerk.

1877.

MAYOR:

CHARLES A. STOTT, '59, '60, * '69, * '70, † '76.

ALDERMEN:

Jeremiah Crowley, '70, '71, *'73, *'74.
Horace R. Barker.
George E. Stanley, *'76.
Charles H. Kimball, '76.
George P. Walker.
Orford R. Blood, '75, '76, seat vacated.
Stephen B. Puffer, declined el. January 2.
Robert Park.
George E. Pinkham, '69.

SAMUEL A. MCPHETRES, City Clerk.

COMMON COUNCIL:

WARD 1.

Daniel W. Manning, '76.
Lewis Stiles, '76.
John Courtney.
Frank Brady, '73, '74, resig'ed March 27.
Jared P. Maxfield, '73, '74, elected May 8.

WARD 2.

Charles E. Hallowell, '76.
Francis D. Munn, '68, 69.
Charles H. Robbins.
Oliver M. Harding.

WARD 3.

William H. Grady, '76.
Patrick Lynch.
Simon Kelly.
George E. Davis.

WARD 4.

Gardner W. King, '76.
James W. Bennett, '76.
Irving K. Goodale.
Orinado Blodgett.

WARD 5.

John F. Kimball, ‡ '76.
Charles H. Hanson '76.
Peter S. Coburn.
Robert Goulding.

WARD 6.

Edwin Sanborn, '76.
John J. Pickman, '76.
Charles H. Walker, '76.
Augustus E. Spaulding, dec. January 10.
George S. Cushing, elected February 6.

DAVID CHASE. Clerk.

1878.

MAYOR:

JOHN A. G. RICHARDSON.

ALDERMEN:

Stephen B. Puffer, *'77.
Robert Park, *'77.
Horace R. Barker, *'77.
George F. Scribner, '57.
George E. Scripture.
Joseph S. Pollard, '64, '65, [*'77.
Jeremiah Crowley, '70, '71, *'73, *'74.
Nathaniel C. Sanborn, '71, '72, '73, *'74.

SAMUEL A. MCPHETRES, City Clerk.

COMMON COUNCIL:

WARD 1.

John Courtney, '77.
John J. Mealey.
Joseph M. Ambrose.
Charles H. Harvey, '74, '75.

WARD 2.

Oramel A. Brigham.
Edward M. Tucke.
William W. Clark.
Albert W. Monty.

WARD 3.

Simon Kelly, '77.
Edward Cawley.
Henry P. Morris.
Samuel D. Butterworth.

WARD 4.

Irving K. Goodale, '77.
Orlando Blodgett, '77.
Robert G. Bartlett.
Stephen H. Jones, '76.

WARD 5.

Robert Goulding, '77.
Peter S. Coburn, '77.
John F. Kimball, ‡'76, ‡'77, President.
Enos O. Kingsley, '56.

WARD 6.

George S. Cushing, '77.
Eli W. Hoyt.
Luke B. Taylor.
Miles F. Brennan, to January 22.
Thomas Nesmith, from January 22.

DAVID CHASE, Clerk.

1879.

MAYOR:

JOHN A. G. RICHARDSON, †'78.

ALDERMEN:

Horace R. Barker, *'77, *'78.
Charles A. R. Dimon.
Joseph S. Pollard, '64, '65, *'78.
Charles S. Lilley.
George E. Scripture, *'78.
George F. Scribner, '57, *'78.
Charles F. Howe.
Robert Goulding, '77, '78.

SAMUEL A. MCPHETRES, City Clerk.

COMMON COUNCIL:

WARD 1.

Joseph M. Ambrose, '78.
John O'Donnell.
James Kelly.
Richard J. Noonan.

WARD 2.

Albert W. Monty, '78.
Charles H. Richardson.
William K. Chase, resigned November 25.
Edwin A. Robinson.
Edward M. Tucke, '78, elected Dec. 9.

WARD 3.

Edward Cawley, '78.
Henry P. Morris, '78.
William T. Benson.
Patrick A. Rogers.

WARD 4.

Robert G. Bartlett, '78.
Fred Woodies.
Charles F. Varnum.
Charles E. Farrington.

WARD 5.

Albert W. Burnham.
Ambrose L. Ready.
Joseph M. Wilson.
Edward B. Peirce, President.

WARD 6.

Eli W. Hoyt, '78.
Luke B. Taylor, '78.
Major A. Shaw.
Miles F. Brennan, '78.

DAVID CHASE, Clerk.

1880.

MAYOR:

FREDERIC T. GREENHALGE, '68, '69.

ALDERMEN:

James D. Hartwell, '70, '75.
Atwill F. Wright, '63, '64.
Charles H. Richardson.
Edwin Lamson, '68, '69.
Isaac F. Scripture, *'62, *'63.
Robert Wood.
Charles H. Coburn.
James C. Abbott.

SAMUEL A. MCPHETRES, City Clerk.

COMMON COUNCIL:

WARD 1.

James Kelly, '79.
Richard J. Noonan, '79.
Thomas J. Flynn.
Lawrence Cummings.

WARD 2.

Edwin A. Robinson, '79.
Wilbur L. Bates.
Samuel W. Foster.
Earl A. Thissell, '72, '73, '75, President.

WARD 3.

Peter H. Donohoe.
William T. Benson, '79.
Patrick A. Rogers, '79.
Frank Wood.

WARD 4.

Fred Woodies, '79.
Charles F. Varnum, '79.
Charles E. Farrington, '79.
Charles D. Starbird, '76.

WARD 5.

Joseph M. Wilson, '79.
Ambrose L. Ready, '79.
Samuel Hosmer.
Edward B. Peirce, ‡ '79.

WARD 6.

Benjamin F. Freeman.
J. Tyler Stevens.
Charles C. Hutchinson.
Henry C. Cooper.

DAVID CHASE, Clerk.

1881.

MAYOR:

FREDERIC T. GREENHALGE, '68, '69, † '80.

ALDERMEN:

Charles H. Richardson, *'80.
Isaac F. Scripture, *'62, *'63, *'80.
Robert Wood, *'80.
Ambrose L. Ready, '79, '80.
Levi Sprague, '59, '64.
Julius A. Stiles.
Samuel D. Butterworth, '78.
Thomas R. Garity, '75.

SAMUEL A. MCPHETRES, City Clerk.

COMMON COUNCIL:

WARD 1.

Thomas J. Flynn, '80.
Lawrence Cummings, '80.
Robert J. Thomas.
Jeremiah J. Hayes.

WARD 2.

Zachariah D. Hall.
James M. Howe, '57, '59.
Hubert M. Potter.
Moses Gibson.

WARD 3.

Frank Wood, '80.
Peter H. Donohoe, '80.
John E. Maguire.
D. Moody Prescott.

WARD 4.

Julius C. Johnson.
Stephen C. Davis.
Edward Garner.
William N. Osgood.

WARD 5.

Atkinson C. Varnum.
Samuel Hosmer, '80.
Samuel P. Marin, '74.
Albert W. Burnham, '79.

WARD 6.

Charles C. Hutchinson, '80.
Albert G. Thompson.
Thomas Nesmith, '78.
Lawrence J. Smith.

DAVID CHASE, Clerk.

1882.

MAYOR:

GEORGE RUNELS, '62, *'64.

ALDERMEN:

Thomas R. Garity, '75, *'81, Chairman.
* Charles W. Sleeper.
George B. Smith.
William A. Wright, '63, '66.
David Whitaker.
D. Moody Prescott, '81.
George S. Cushing, '77, '78.
John F. Phillips.
† John Welch.

‡ SAMUEL A. MCPHETRES, City Clerk. § DAVID W. O'BRIEN, City Clerk.

* Resigned, May 23; special election to fill vacancy, June 20.
† Elected June 20, to fill vacancy. ‡ Died Sept. 29, 1882 § Elected Oct. 4, 1882.

COMMON COUNCIL:

WARD 1.

Robert J. Thomas, '81.
Jeremiah J. Hayes, '81.
Dennis J. Crowley.
John A. Walsh.

WARD 2.

Zachariah D. Hall, '81.
James M. Howe, '57, '59, '81.
Moses Gibson, '81.
James F. Puffer, Jr.

WARD 3.

Frank Wood, '80, '81.
John E. Maguire, '81.
John J. Mead.
James Grady.

WARD 4.

Julius C. Johnson, '81.
Stephen C. Davis, '81.
Edward Garner.
William N. Osgood, '81, President.

WARD 5.

Atkinson C. Varnum, '81.
Albert W. Burnham, '79, '81.
Artemas B. Woodworth.
Horace B. Barnes.

WARD 6.

Albert G. Thompson, '81.
Lawrence J. Smith, '81.
Thaddeus S. Cobb.
Miles J. Fletcher.

DAVID CHASE, Clerk.

1883.

MAYOR:

JOHN J. DONOVAN.

ALDERMEN:

John F. Phillips, *'82, Chairman.
George B. Smith, *'82.
Robert J. Thomas, '81, '82.
David Whitaker, *'82.
D. Moody Prescott, '81, *'82.
George W. Fifield.
John Welch, *'82.
Miles J. Fletcher, '82.

DAVID W. O'BRIEN, City Clerk.

COMMON COUNCIL:

WARD 1.

Dennis J. Crowley, '82.
John J. Hogan.
James H. Cahill.
Daniel Murphy.

WARD 2.

Samuel Lawrence, '50.
Joseph S. Brown, '72, '73, *'74, *'75.
Albert W. Monty, '78, '79.
John F. Thissell.

WARD 3.

James Grady, '82.
John J. Mead, '82.
Patrick J. Smith.
Frank J. Donohue.

WARD 4.

James G. Elliott.
Solomon K. Dexter.
Alonzo L. Russell, '72.
Geo. A. Bennett.

WARD 5.

Edward B. Pierce, ‡'79, '80.
Artemas B. Woodworth, '82.
John P. Mahoney.
George L. Ashworth.

WARD 6.

Lawrence J. Smith, '81, '82.
Thaddens S. Cobb, '82.
J. Frank Page.
Michael F. Clark.

DAVID CHASE, Clerk.

1884.

MAYOR:

JOHN J. DONOVAN, † '83.

ALDERMEN:

Robert J. Thomas, '81, '82, *'83, Chair'n.
Miles J. Fletcher, '82, *'83.
George W. Fifield, '83.
Thaddeus S. Cobb, '82, '83.
Edward B. Quinn.
Jeremiah Crowley, '70, '71, *'73, *'74, *'77, *'78.
Peter H. Donohoe, '80, '81.
Freeman B. Shedd.

DAVID W. O'BRIEN, City Clerk.

COMMON COUNCIL:

WARD 1.

John J. Hogan, '83, President.
James H. Cahill, '83.
Daniel Murphy, '83.
James H. Morrison.

WARD 2.

Joseph S. Brown, '72, '73, *'74, *'75, '83.
Albert W. Monty, '78, '79, '83.
Earl A. Thissell, '72, '73, '75, ‡ '80.
John R. Pike.

WARD 3.

Patrick J. Smith, '83.
Peter J. Brady.
Thomas J. Sparks.
John Nolan.

WARD 4.

James G. Elliott, '83.
Solomon K. Dexter, '83.
Alonzo L. Russell, '72, '83.
George A. Bennett, '83.

WARD 5.

Edward B. Peirce, ‡ '79, '80, ‡ '83.
George L. Ashworth,
Joseph M. Wilson, '79, '80.
James S. Hanson.

WARD 6.

J. Frank Page, '83.
Michael F. Clark, '83.
Alfred M. Chadwick.
Marcellus H. Fletcher.

DAVID CHASE, Clerk.

1885.

MAYOR:

EDWARD J. NOYES.

ALDERMEN:

John F. Phillips, *'82, *'83, Chairman.
John F. Howe, '57, '58, *'59.
William D. Brown.
George E. Stanley, *'76, *'77.
James D. Hartwell, '70, '75, *'80.
George F. Penniman.
Oliver E. Cushing.
James Francis.

SAMUEL M. CHASE, City Clerk.

COMMON COUNCIL:

WARD 1.

Patrick H. Plunkett.
James H. Morrison, '84.
Thomas J. Enright.
Henry F. Keyes.

WARD 2.

George W. Brothers.
Walter M. Sawyer.
James R. Fulton.
Francis D. Munn, Jr.

WARD 3.

Peter J. Brady, '84.
Patrick J. Smith, '83, '84.
John Nolan, '84.
Thomas J. Sparks, '84.

WARD 4.

Arnold S. Welch.
George A. Roper.
William A. Lang.
Frank W. Howe.

WARD 5.

Wilson W. Carey.
James S. Hanson, '84.
Henry L. Newhall.
Elwyn W. Lovejoy.

WARD 6.

Alfred M. Chadwick, '84, President.
George R. Richardson.
Luke B. Taylor, '78, '79.
William H. White.

DAVID CHASE, Clerk.

1886.

MAYOR:

JAMES C. ABBOTT.

ALDERMEN:

Jeremiah Crowley, '70, '71, *'73, *'74, *'77, *'78, *'84, Chairman.
John F. Phillips, *'82, *'83, *'85.
Stephen B. Puffer, *'77, *'78.
George E. Stanley, *'76, *'77, *'85.
Daniel Wright.
Samuel D. Butterworth, *'78, *'81.
George F. Penniman, *'85.
James Francis, *'85.

SAMUEL M. CHASE, City Clerk.

COMMON COUNCIL:

WARD 1.

Peter B. Sherlock.
Patrick H. Plunkett, '85.
Thomas J. Enright, '85.
Timothy H. Brennan.

WARD 2.

Walter M. Sawyer, '85, President.
Charles H. Richardson, '79.
James R. Fulton, '85.
Francis D. Munn, Jr., '85.

WARD 3.

Daniel Cleary.
Patrick J. Mahan.
Edward D. McVey.
Thomas J. Sparks, '84, '85.

WARD 4.

Arnold S. Welch, '85.
George A. Roper, '85.
Frank W. Howe, '85.
William A. Lang, '85.

WARD 5.

Henry L. Newhall, '85.
Elwyn W. Lovejoy, '85.
Wilson W. Carey, '85.
Roswell M. Boutwell, '85.

WARD 6.

Lawrence J. Smith, '81, '82, '83.
John E. Drury.
Charles H. Hobson.
Marcellus H. Fletcher, '84.

DAVID CHASE, Clerk.

1887.

MAYOR:

JAMES C. ABBOTT, † '86.

ALDERMEN:

Stephen B. Puffer, *'77, *'78, *'86, Chai'n.
Nathan D. Pratt.
Francis C. Plunkett.
August Fels.
Peter H. Donohoe, '80, 81, *'84.
Miles J. Fletcher, '82, *'83, *'84.
Frederick Frye, '62, '63, *'68.
Marcellus H. Fletcher, '84, '86.

DAVID W. O'OBRIEN, City Clerk.

COMMON COUNCIL:

WARD 1.

Michael J. Garvey.
Dennis A. Sullivan.
Daniel Murphy, '83, '84.
Dennis J. Leary.

WARD 2.

Walter M. Sawyer, † '86.
Charles H. Richardson, '79, '86.
George C. Evans.
Horace P. Beals.

WARD 3.

George B. McKenna.
John Nolan, '84, '85.
Daniel Cleary, '86.
Patrick J. Smith, '83, '84, '85.

WARD 4.

Millard F. Wright.
Edmund B. Conant.
Jesse H. Shepard.
Richard Dobbins.

WARD 5.

Roswell M. Boutwell, '86.
George W. Brothers, '85.
Clarence G. Coburn.
James H. Carmichael, President.

WARD 6.

Richard B. Allen.
John E. Drury, '86.
Patrick Conlon.
Edward Gallagher.

WILLIAM J. COUGHLIN, Clerk.

1888.

MAYOR:
CHARLES D. PALMER.

ALDERMEN:

George A. Scribner.
George E. Putnam.
Charles Runels, '76.
Charles E. Carter.
Edward D. Holden.
Arthur Staples.
Roswell M. Boutwell, '86, '87.
Alfred M. Chadwick, '84, ‡ '85, Chairm'n.

GIRARD P. DADMAN, City Clerk.

COMMON COUNCIL:

WARD 1.

Dennis A. Sullivan, '87.
Dennis J. Leary, '87.
Daniel Murphy, '83, '84, '87.
Michael J. Garvey, '87.

WARD 2.

Frank J. Sherwood.
Horace P. Beals, '87.
Harry E. Shaw.
Pierre A. Brousseau.

WARD 3.

John F. Rogers.
Owen M. Donohoe.
Thomas J. Sparks, '84, '85, '86.
*John F. Roane.
† Patrick H. Brosnahan.
*Resigned Aug. 9. Special Election to fill vacancy Sept. 18.
† Elected Sept. 18 to fill vacancy.

WARD 4.

*Millard F. Wright, '87.
Edmund B. Conant, '87, President.
Jesse H. Shepard, '87.
Richard Dobbins, '87.
† Alonzo G. Walsh.
*Resigned April 24. Special Election to fill vacancy June 5.
† Elected June 5 to fill vacancy.

WARD 5.

Charles C. Hartwell.
Clarence G. Coburn, '87.
George W. Brothers, '85.
Joseph S. Lapierre.

WARD 6.

William E. Westall.
Frank Brown.
Richard B. Allen, '87.
Abbott Lawrence.

DAVID CHASE, Clerk.

1889.

MAYOR:
CHARLES D. PALMER, † '88.

ALDERMEN:

George A. Scribner, *'88.
Walter M. Sawyer, '85, ‡ '86, '87.
George E. Putnam, *'88.
Edward D. Holden.
Roswell M. Boutwell, '86, '87, *'88, Ch'n.
John H. Fuller.
William F. Senter.
John E. Drury, '86, '87.

GIRARD P. DADMAN, City Clerk.

COMMON COUNCIL:

WARD 1.

Patrick J. Savage.
Joseph H. Callahan.
Daniel H. Courtney.
William J. Johnson.

WARD 2.

*Samuel C. George.
Pierre A. Brousseau, '88.
Arthur H. Cluer.
Frank J. Sherwood, '88.
† James Stuart Murphy.
*Res'd June 9. †Ele. July 2, to fill vacancy.

WARD 3.

Owen M. Donohoe, '88.
Stephen Garrity.
Patrick H. Brosnahan, '88.
Thomas J. Sparks, '84, '85, '86, '88.

WARD 4.

B. Frank Hale.
Edwards Cheney.
Alonzo G. Walsh, '88.
Frank Gray.

WARD 5.

Orford R. Blood, '75, '76.
Charles C. Hartwell, '88.
Henry W. Ladd.
Henry J. Draper.

WARD 6.

William E. Westall, '88, President.
Abbott Lawrence, '88.
Albert Crowell.
Frank Brown, '88.

DAVID CHASE, Clerk.

1890.

MAYOR:

CHARLES D. PALMER, '88, † '89.

ALDERMEN:

Albert D. Carter.
Watson A. Dickinson.
John E. Drury, '86, '87, *'89.
Edmund D. Fletcher.
John H. Fuller, *'89, Chairman.
Walter M. Sawyer, '85, ‡ '86, '87, *'89.
Samuel E. Snow.
Joseph M. Wilson, '79, '80, '84.

GIRARD P. DADMAN, City Clerk.

COMMON COUNCIL:

WARD 1.

Joseph H. Callahan, '89.
Daniel H. Courtney, '89.
William J. Johnson, '89.
Patrick J. Savage, '89.

WARD 2.

Newell Abare.
Arthur H. Cluer, '89.
Walter C. Coburn.
James Stuart Murphy, '89.

WARD 3.

Patrick H. Brosnahan, '88, '89.
Robert C Gallagher.
Charles L. Marren.
Thomas J. Sparks, '84, '85, '86, '88, '89.

WARD 4.

Edwards Cheney, '89.
Frank Gray, '89.
B. Frank Hale, '89.
Alonzo G. Walsh, '88, '89, President.

WARD 5.

Orford R. Blood, '75, '76, '89.
Herbert M. Jacobs.
Henry W. Ladd, '89.
Louis P. Turcotte.

WARD 6.

Albert Crowell, '89.
Daniel D. Driscoll.
James Gookin.
Edward F. Spaldlng.

DAVID CHASE Clerk.

1891.

MAYOR:

GEORGE W. FIFIELD, *'83, *'84.

ALDERMEN:

Richard B. Allen, '86, '87.
James W. Cassidy.
Jeremiah Crowley, '70, '71, *'73, *'74, *'77, *'78, *'84, *'86, Chairman.
Watson A. Dickinson, *'90.
Thomas J. Enright, '85, '86.
George H. Frye.
Stephen B. Puffer, *'77, *'78, *'86, *'87.
George F. Tilton.

MICHAEL J. DOWD, City Clerk.

COMMON COUNCIL:

WARD 1.

Patrick H. Barry.
James F. Doherty.
John J. Sullivan.
Peter F. Garrity.

WARD 2.

Newell Abare, '90.
Adolphe Benard.
Walter C. Coburn, '90.
George H. Marston.

WARD 3.

Patrick J. Baxter.
John J. Gilbride.
Charles H. Marren, '90.
Thomas J. Sparks, '84, '85, '86, '88, '89, '90, President.

WARD 4.

Edwin L. Giles.
Fred Horne.
Wallace G. Parkin.
Eugene C. Wallace.

WARD 5.

Herbet M. Jacobs, '90.
George D. Kimball.
John A. Speirs.
Louis P. Turcotte, '90.

WARD 6.

James A. Cawley.
James J. Dolan.
Daniel D. Driscoll, '90.
James Gookin, '90.

DAVID CHASE, Clerk.

1892.

MAYOR:

GEORGE W. FIFIELD, *'83, *'84, † '91.

ALDERMEN:

Samuel D. Butterworth, *'78, *'81, *'86.
James W. Cassidy, *'91.
William J. Coughlin.
Albert A. Haggett, '68, '69, ‡ '70, *'71, *'76, Chairman.
Stephen J. Johnson.
Freeman W. Puffer.
Frank E. Stowell.
Charles F. Varnum, '79, '80.

MICHAEL J. DOWD, City Clerk.

COMMON COUNCIL

WARD 1.

John Brunette.
James O'Neill,
Joseph O'Rourke.
John J. Sullivan, '91.

WARD 2.

Adolphe Benard, '91.
George H. Marston, '91.
Frank Scott.
Hugh A. Thompson.

WARD 3.

Patrick J. Baxter, '91.
John J. Gilbride, '91.
Thomas J. Sparks, '84, '85, '86, '88, '89, '90, ‡ '91, President.
William H. Stafford.

WARD 4.

Edwin L. Giles, '91.
Fred Horne, '91.
Wallace G. Parkin, '91.
Moses Wyman.

WARD 5.

Constant Henotte.
Patrick H. Kehoe.
Joseph A. McDonald.
Charles W. Swan.

WARD 6.

William T. Benson, '79, '80.
James J. Dolan, '91.
Thomas F. Hoban.
Michael F. McCarthy.

DAVID CHASE, Clerk.

1893.

MAYOR:

JOHN J. PICKMAN, '76, '77.

ALDERMEN:

George R. Choate.
George C. Evans, '87.
Stephen J. Johnson, *'92.
Elwyn W. Lovejoy, '85, '86.
Joseph A. McDonald, '92.
Freeman W. Puffer, *'92.
Stephen B. Puffer, *'77, *'78, *'86, *'87, *'91.
William E. Westall, '88, ‡ '89, Chairman.

MICHAEL J. DOWD, City Clerk.

COMMON COUNCIL:

WARD 1.

John Brunette, '92.
Patrick J. O'Brien.
James O'Neil, '92.
Fred H. Rourke.

WARD 2.

Charles H. Boisvert.
Frank Scott, '92.
Hugh A. Thompson, '92.
George H. Tryder.

WARD 3.

Frank Dunlap.
John J. Grady.
John Joseph O'Connor.
William H. Stafford, '92.

WARD 4.

George E. Barclay.
William J. Hills.
Charles T. Killpartrick.
Moses Wyman, '92.

WARD 5.

Cyrille Constantineau.
Patrick J. Custy.
Charles H. Noble.
James O'Sullivan.

WARD 6.

William T. Benson, '79, '80, '92, Pres.
James J. Dolan, '91, '92.
Thomas F. Hoban, '92.
Anthony Robinson.

FRANK J. SIMONDS, Clerk.

1894.

MAYOR:

JOHN J. PICKMAN, '76, '77, † '93.

ALDERMEN:

Charles N. Bagley.
Watson A. Dickinson, *'90, *'91.
Frank Dunlap, '93.
Coolidge R. Johnson.
Stephen J. Johnson, *'92, *'93.
Elwyn W. Lovejoy, '85, '86, *'93, Chairman.
George E. Stanley, *'76, *'77, *'85, *'86.
William E. Westall, '88, ‡ '89, *'93.

MICHAEL J. DOWD, City Clerk.

COMMON COUNCIL:

WARD 1.

Matthew M. Mansfield.
Patrick J. O'Brien, '93.
Fred H. Rourke, '93.
John J. Ryan.

WARD 2.

J. Henry Collins.
John G. Gordon.
Fred W. Sanborn.
George H. Tryder, '93.

WARD 3.

Joseph H. Gormley.
John J. O'Connell.
John Joseph O'Connor, '93.
Thomas J. Sparks, '84, '85, '86, '88, '89, '90, ‡ '91, ‡ '92, President.

WARD 4.

George E. Barclay, '93.
William L. Hills, '93.
Charles T. Killpartrick, '93.
Luther F. Kittredge.

WARD 5.

Patrick J. Custy, '93.
Frederick E. Labarge.
Charles H. Noble, '93.
John Oliver.

WARD 6.

William T. Benson, '79, '80, '92, ‡ '93, Died May 21, 1894.
William F. Curtin.
Charles Riley.
Anthony Robinson, '93.
Thomas O'Day, Elected July 17, '94.

FRANK J. SIMONDS, Clerk.

1895.

MAYOR:

WILLIAM F. COURTNEY.

ALDERMEN:

Frank B. Dow.
Frederic J. Flemings.
William L. Hills, '93, '94.
Charles E. Howe.
George H. Tryder, '93, '94.
Daniel H. Varnum, Chairman.
John C. Wilson.
Moses Wyman, '92, '93.

GIRARD P. DADMAN, City Clerk.

COMMON COUNCIL:

WARD 1.

Patrick H. Barry, '91.
Thomas F. Garvey.
Hugh Maguire, Jr.,
Matthew M. Mansfield.

WARD 2.

Edwin S. Eastman.
William Hounsell.
Willis E. Morse.
Fred W. Sanborn, '94.

WARD 3.

Patrick F. Delehanty.
Joseph H. Gormley, '94.
James F. Miskella.
Timothy J. Reynolds.

WARD 4.

David Dickson.
Edward T. Goward.
Jonathan G. Hunton.
Herbert E. Webster.

WARD 5.

Eugene E. Dennison.
George W. Hartwell.
John Oliver.
Francis P. Rivet.

WARD 6.

William F. Curtin, '94, President.
Thomas O'Day, '94.
Charles Riley, '94.
John E. Sullivan.

FRANK J. SIMONDS, Clerk.

1896.

MAYOR:

WILLIAM F. COURTNEY, † '95.

ALDERMEN:

Jeremiah Crowley, '70, '71, *'73, *'74, *'77, *'78, *'84, *'86, Chairman.
Frank B. Dow, *'95.
Frederic J. Flemings, *'95.
Charles E. Howe, *'95.
John H. McAlvin.
James A. Pevey.
George H. Tryder, '93, '94, *'95.
Edward M. Tucke.
John C. Wilson, *'95.

GIRARD P. DADMAN, City Clerk.

COMMON COUNCIL:

WARD 1.

William Hounsell, '95, ward 2.
Jonathan G. Hunton, '95, ward 4.
Homer B. Nay.

WARD 2.

William J. Dunn.
Hugh Maguire, Jr., '95, ward 1.
Dennis J. Pendergast.

WARD 3.

David Dickson, '95, ward 4.
Frank H. Hallett.
Herbert M. Jacobs, '90, '91, ward 5.

WARD 4.

James F. Miskella, 95, ward 3.
Stephen O'Hare.
Timothy J. Reynolds, '95, ward 3.

WARD 5.

John P. O'Hare.
John E. Sullivan, '95, ward 6.
Charles E. Thornton.

WARD 6.

William E. Badger.
Sidney Drewett.
Edwin S. Eastman.

WARD 7.

George W. Hartwell, '95, ward 5.
Francis P. Rivet, '95, ward 5.
Lorenzo E. Smith.

WARD 8.

Fred A. George.
William H. Penn.
Herbert E. Webster, '95, ward 4, Pres't.

WARD 9.

Charles A. Eveleth.
Henry K. White.
Carl G. A. F. W. E. Pihl.

FRANK N. OWEN, Clerk.

SEVENTY-FIRST

ANNUAL REPORT

OF THE

SCHOOL COMMITTEE

OF THE

CITY OF LOWELL, MASS.

TOGETHER WITH THE

REPORTS OF THE SUB-COMMITTEES ON BOOKS AND SUPPLIES, AND MUSIC,

AND THE

THIRTY-THIRD ANNUAL REPORT

OF THE

Superintendent of Public Schools.

1896.

LOWELL, MASS.:
BUTTERFIELD PRINTING AND BINDING CO.
1897.

CITY OF LOWELL.

Office of the School Committee,

Lowell, Mass., Jan., 4, 1897

At a meeting of the School Committee, held Jan. 4, 1897, it was voted that the Committee on Reports, other Standing Committees, and the Superintendent of Schools, have leave to print their annual reports for the year 1896.

In accordance with this vote the reports are herewith submitted.

A. K. WHITCOMB, Secretary.

ORGANIZATION

OF THE

SCHOOL COMMITTEE, 1896.

ANDREW G. SWAPP, President.

ARTHUR K. WHITCOMB, Secretary.

Ward 1.—	AZRO H. SCHOOLCRAFT, 46 Bowditch St.,	Term	Expires	1897
" 2.—	THOMAS J. MULLIGAN, Sun Office,	"	"	1897
" 3.—	GEORGE F. THOMAS, 417 Middlesex Street,	"	"	1896
" 4.—	WILLIAM J. KELLEY, 295 Central Street,	"	"	1897
" 5.—	HUGH F. FARLEY, 202 Concord Street,	"	"	1896
" 6.—	G. FORREST MARTIN, 17 Kirk Street,	"	"	1896
" 7.—	ANDREW G. SWAPP, 307 Pawtucket Street,	"	"	1897
" 8.—	WILLARD EVERETT, 12 Belmont Street,	"	"	1896
" 9.—	ALBERT G. THOMPSON, 195 East Merrimack Street, ...	"	"	1897

STANDING COMMITTEES.

On Teachers.—Messrs. Swapp, Everett, Kelley.

On Books and Supplies.—Messrs. Martin, Everett, Thomas, Schoolcraft. Mulligan.

On Evening Schools.—Messrs. Everett, Swapp, Martin, Thompson, Kelley.

On High School.—Messrs. Thompson, Everett, Martin, Swapp, Mulligan.

On Penmanship and Drawing.—Messrs. Thomas, Schoolcraft, Farley.

On Music.—Messrs. Schoolcraft, Martin, Farley.

On Reports and Printing.—Messrs. Swapp, Thomas, Farley.

On Accounts.—Messrs. Mulligan, Thompson, Schoolcraft.

On School-Houses and Hygiene.—Messrs. Kelley, Mulligan, Thomas.

On Rules.—Messrs. Farley, Thompson, Kelley.

ASSIGNMENT OF SCHOOLS.

Mr Schoolcraft.—Edson, Eliot, Kirk Street, Cottage Street, Chapel Street.

Mr. Mulligan.—High, Worthen Street, Cheever Street, Morrill, Colburn Street Kindergarten.

Mr. Thomas.—Lincoln, Pawtucket, Howard Street, Grand Street, Mammoth Road, Lincoln Kindergarten.

Mr. Kelley.—Butler, London Street, Weed Street, Agawam Street, Carter Street, Agawam Street Kindergarten.

Mr. Farley.—Green, Charles Street, Central Street, Ames Street, Fayette Street.

Mr. Martin.—High, Varnum, West Sixth Street, Tenth Street, Lakeview Avenue, Billings Street, Bridge Street Kindergarten.

Mr. Swapp.—High, Bartlett, School Street, Cabot Street, Cross Street, Varnum Avenue, Mt. Vernon Street Kindergarten.

Mr. Everett.—High, Highland, Franklin, Dover Street, Powell Street, Plain Street, Middlesex Village, Dover Street Kindergarten.

Mr. Thompson.—High, Moody, Pond Street, High Street, Sycamore Street. Moody Kindergarten.

ARTHUR K. WHITCOMB, Superintendent of Public Schools.

Office in City Hall.

OFFICE HOURS.—One hour after the forenoon session of the schools and from 2 to 3 o'clock on Saturday afternoon.

TRUANT COMMISSIONERS.

JOHN F. WILLIAMS. JAMES KELLY. WILLIAM F. THORNTON.

Office in City Hall.

OFFICE HOURS.—Saturday, 2 to 3 o'clock P. M. Other days 4 to 5 o'clock P. M., except during July and August, when the office will be open from 9 to 10 o'clock A. M.

REGULAR MEETINGS OF THE SCHOOL COMMITTEE.

January 27.	February 24.	March 30.	April 27.
May 25.	June 29.	July 27.	August 24.
September 28.	October 26.	November 30.	December 28.

ORGANIZATION

OF THE

SCHOOL COMMITTEE, 1897.

ANDREW G. SWAPP, President.

ARTHUR K. WHITCOMB, Secretary.

Ward 1.—	AZRO H. SCHOOLCRAFT, 46 Bowditch St.	Term	Expires	1897
" 2.—	THOMAS J. MULLIGAN, Sun Office,	"	"	1897
" 3.—	GEORGE F. THOMAS, 417 Middlesex Street,	"	"	1898
" 4.—	WILLIAM J. KELLEY, 295 Central Street,	"	"	1897
" 5.—	HUGH F. FARLEY, 202 Concord Street,	"	"	1898
" 6.—	FRANK K. STEARNS, 256 Lawrence Street,	"	"	1898
" 7.—	ANDREW G. SWAPP, 307 Pawtucket Street,	"	"	1897
" 8.—	WILLARD EVERETT, 12 Belmont Street,	"	"	1898
" 9.—	ALBERT G. THOMPSON, 195 East Merrimack Street, ...	"	"	1897

STANDING COMMITTEES.

On Teachers.—Messrs. Swapp, Everett, Kelley.

On Books and Supplies.—Messrs. Thomas, Schoolcraft, Stearns, Mulligan, Farley.

On Evening Schools.—Messrs. Everett, Swapp, Schoolcraft, Stearns, Kelley.

On High School.—Messrs. Thompson, Everett, Swapp, Mulligan, Kelley.

On Penmanship and Drawing.—Messrs. Thomas, Schoolcraft, Farley.

On Music.—Messrs. Schoolcraft, Thompson, Farley.

On Reports and Printing.—Messrs. Stearns, Thomas, Farley.

On Accounts.—Messrs. Mulligan, Thompson, Stearns.

On School-Houses and Hygiene.—Messrs. Swapp, Thomas, Mulligan.

On Rules.—Messrs. Thompson, Everett, Kelley.

ASSIGNMENT OF SCHOOLS.

Mr. Schoolcraft.—Edson, Eliot, Kirk Street, Cottage Street, Chapel Street.

Mr. Mulligan.—High, Worthen Street, Cheever Street, Morrill, Dutton Street Kindergarten.

Mr. Thomas.—Lincoln, Pawtucket, Howard Street, Grand Street, Mammoth Road, Lincoln Kindergarten.

Mr. Kelley.—High, Butler, London Street, Weed Street, Agawam Street, Carter Street, Lyon Street, Agawam Street and Chapel Street Kindergartens.

Mr. Farley.—Green, Charles Street, Central Street, Ames Street, Fayette Street.

Mr. Stearns.—Varnum, West Sixth Street, Tenth Street, Lakeview Avenue, Billings Street, Bridge Street Kindergarten.

Mr. Swapp.—High, Bartlett, Training, School Street, Cross Street, Varnum Avenue, Pawtucketville and Mt. Vernon Street Kindergartens.

Mr. Everett.—High, Highland, Franklin, Dover Street, Powell Street, Plain Street, Middlesex Village, Franklin and Highlands Kindergartens.

Mr. Thompson.—High, Moody, Pond Street, High Street, Sycamore Street, Moody Kindergartens.

ASSIGNMENT OF EVENING SCHOOLS.

Mr. Everett.—High, Mann, Worthen, Middlesex Village.
Mr. Swapp.—Bartlett, Green, Pawtucket.
Mr. Stearns.—Varnum, Aiken Avenue.
Mr. Schoolcraft.—Edson, Colburn, High Street.
Mr. Kelley.—Butler, Franklin.

ARTHUR K. WHITCOMB, Superintendent of Public Schools.
Office in City Hall.

Office Hours.—One hour after the forenoon session of schools, and from 2 to 3 o'clock on Saturday afternoon.

TRUANT COMMISSIONERS.

JOHN F. WILLIAMS. JAMES KELLY. WILLIAM F. THORNTON.
Office in City Hall, Third Floor.

Office Hours.—Saturday, 2 to 3 o'clock P. M. Other days 4 to 5 o'clock P. M., except during July and August, when the office will be open from 9 to 10 o'clock A. M.

REGULAR MEETINGS OF THE SCHOOL COMMITTEE.

January 25.	February 22.	March 29.	April 26.
May 31.	June 28.	July 26.	August 30.
September 27.	October 25.	November 29.	December 27.

REPORTS.

Report of the School Committee.

The Committee upon Reports beg leave to respectfully present the following as the Annual Report of the School Committee.

The schools of Lowell are placed by the people in the hands of the School Board. The power given them is practically unlimited, both as regards methods of teaching and the amount of money to be expended. It is this responsibility that confronts each board on the day of its organization. The School Committee, under the old system of fourteen members, have not, of late years, received the credit that belonged to them for good work that they had done, on account of the many quarrelsome meetings that were held.

The re-organization of our city government making the school board to consist of nine members, one from each ward, leaving out the Mayor and President of the

Common Council, has been a most decided step in the right direction. It has been the means of eliminating politics from the board as far as it is possible to do so. By having each ward represented by one member instead of two, the responsibility is more easily placed, and the parents know to whom to apply in case any school information is wanted. The time has been when the School Board was often used as a stepping stone to some other political office, but this has not been the case for some years. Under the new system the members are all elected to the School Committee alone and are not interested as members in any other branch of the city government.

The tax payers and citizens of Lowell will never complain about the expenses of our public schools if they are assured that they are conducted in a careful, business-like manner, free from politics, and are kept in close touch with the best educational theories and methods of the day. The School Board of 1896, from the day of its inauguration till the close of the year, have earnestly endeavored to follow this course. Realizing the depression which has affected all kinds of business, the Committee have curtailed every kind of expense that they possibly could without seriously crippling our school system. Several important matters have come before the Board, and have been care-

fully considered, and although it was admitted that the proposed changes would be for the benefit of our schools, yet on account of the expense which would be incurred by adopting them, no action was taken, and they were left to the consideration of some future Board for adoption.

Several appeals for more salary have been received, but with the exception of a slight increase in the salary of two of our special instructors, the requests have been refused on account of the times, although in some cases the applicants had the best of reasons why an increase should have been granted.

The tenure of office, which has been made a part of the school rules, has, generally speaking, worked well, and should have been adopted years ago. This has done away with the annual election of teachers who have faithfully and conscientiously performed their duties during a number of years to the satisfaction, not only of the School Committee, but of the parents and pupils as well. This rule does not, however, mean that the School Committee cannot at any time dispense with the services of any teacher who is not competent, and does not keep his or her work up to the standard. The fact that a teacher has come under the tenure of office rule must not lead him or her to suppose that, regardless of their work, they

have been elected for life and cannot be released, for, notwithstanding this rule, the School Board can at any time dispense with the services of any teacher without any previous notice, and without giving any reason for such action. The attention of the Committee has been called to the poor work of some teachers, and they have been notified that unless their work improves, their services will be dispensed with. This, so far, has had the desired effect.

The work of purchasing the text books and supplies for the School Department has grown to be a very important matter to the City of Lowell. The sub-committee on Books and Supplies are receiving constant demands from book agents to change text books, and also constant demands from the teachers for supplementary reading and all kinds of school material. During the past year the chairman of the sub-committee has taken the greatest care to purchase only what was absolutely necessary, and at the lowest possible figure.

All of the bills contracted have been carefully audited and approved by him before payment. I have no hesitation in saying that this department has never been given so much attention as during the past year.

During the year the city government have passed

a loan of two hundred thousand dollars for new school buildings, and the Committee on Lands and Buildings have made very commendable progress in their erection. I take pleasure in recording the fact that this Committee, contrary to the usual custom of former committees, have consulted with the Superintendent and members of the School Board, and have been at all times ready to make such changes as the School authorities have from time to time suggested. There is the old trouble, however, in regard to the janitors. The School Board, through the teachers and scholars, receive complaints about janitors, but as they have no authority over them they are powerless to remedy any evil. As far as the political patronage is concerned, the School Board would prefer not to appoint these men, but there is no doubt that if the janitors and the care of the school buildings were in the hands of the School Committee, the welfare of our scholars would be more closely looked after than it is under the present system.

Early in the year, in the interest of economy, as well as to bring the whole school system under one head, the Board abolished the office of Supervisor of Evening Schools, and called upon the Superintendent to take charge of this work. We believe that this change has been the means of improving our evening

school system. The Superintendent has made some valuable suggestions that the Committee have adopted, as well as given the principals and teachers some good advice in regard to the teaching and grading of the evening schools. The age limit for evening school teachers has been raised from eighteen to twenty years, and unless the applicants have graduated from the Lowell High School they are obliged to pass a written examination before they can be appointed to an evening school.

The evening schools are no longer an experiment. They reach a class that cannot obtain the rudiments of an education in any other way, and in a city with so many operatives who cannot read and write in English, they must be maintained in order that illiterate minors may obtain daily employment.

Our training school has never been crowded with so much school work as during this year. The classes are all large, and the ground covered by the pupil teachers has been broadened so that it became necessary to elect another assistant. With an enthusiastic principal, who is doing most excellent work, this school has been the means of stimulating the teachers throughout the city.

The Kindergarten is one of the most popular branches of our school system, and to accommodate all

parts of our city four more schools have been opened during the year. The good work of these schools is fully appreciated, but on account of the expense it would seem that the present accommodations should be considered sufficient for some time to come.

Manual Training has also been curtailed on account of the expense which would be necessary in order to fit this school for first class work. The erection of the new building on John Street, which it is hoped will be built during the coming year, should be the first step to improve this work. When permanent quarters have been provided it will then be a simple question how far the School Board desires to carry the Manual Training course in our High School.

In reviewing the year's School work we can readily see that commendable progress has been made. Under the direction of our very efficient Superintendent, who has left no stone unturned to incorporate the latest and best educational methods and measures into our schools, and who is ably assisted by an earnest and conscientious corps of teachers, we feel our schools are in excellent hands, and rank high with the other public schools of our Commonwealth.

ANDREW G. SWAPP.
GEO. F. THOMAS.
HUGH F. FARLEY.

Report of the Committee on Music.

To the School Committee:

Your Committee on Music renders the following report: The subject of a change in the music system for the public schools of Lowell had been a matter of controversy by our predecessors, and recognizing the importance of the question, your committee visited other cities, to gain a personal knowledge of the results and workings of various systems presented for our consideration. After due deliberation, "The American" was found to give unbounded satisfaction wherever taught in its purity, and was adopted, as the requisite course in music, so long needed in our city.

The importance of music in the school course is greatly underestimated by the public-at-large. Music is generally thought to be merely an amusement or relaxation for the children, and no doubt the work of the day can be greatly relieved by the songs of recreation as presented in the "American System." The songs we learn in childhood live in our memory, and are a powerful influence through life. Music has a refining and refreshing power on the mind of the child, and who can estimate its ennobling effect on the children, especially those who are brought up in adverse circumstances. The songs of the school teach the virtues and sentiments of patriotism, and love of the higher things, and

these songs and their words will last as a continual incentive to the better life, while their melodies, floating through the mind, will sound like the "still small voice" urging on to the right.

We believe music is a most important branch of education, as its study tends to develop the ability to observe, to discriminate, and to use the powers of the mind in a quick and intelligent way. Vocal music as taught in our schools to-day demands discipline, attention, a quick perception, and the ability to compare with instant judgment, and is one of the best forms of physical culture, acts most beneficially upon the health of the pupils. This system insists upon the relationship of speech and song, and its vowel and consonant exercises in the early charts emphasize the proper production of those sounds, both in speaking and singing. The "American System" has in view these objects:

First. The development of the vocal organs through proper exercise in breathing and singing.

Second. The freedom of the vocal utterance by practice; first, with pure vowels, and later, these with consonants prefixed and suffixed.

Third. The abandonment of the Sol Fa formula, and using instead the intelligent system of interval reading, using vowels and words in practice, retaining the numbers from one to eight, and the usual letters as the names of the fixed tones.

Fourth. The major scale is taught by its representation as a musical ladder, giving each step a name (numeral) and afterwards requiring pupils to sing it with various vowel sounds. When the scale with its intervals is thus learned, it is transferred with numerals and letters to the staff with its notation. Continuing practice with vowels, words and songs, the numerals are abandoned as soon as the staff intervals are understood. To train the voice properly, and to insist upon a sweet, pure and musical tone, will serve to develop and retain the musical qualities of the voice.

We consider ourselves fortunate in securing the services of one thoroughly equipped for our work. Dr. F. R. Rix was born in Lowell, and was educated in our schools; is a graduate of Harvard College and the Harvard Medical School. He is a thorough musician, instrumental and vocal, and great results are expected under his supervision. The teachers are divided into four classes, with one of which the supervisor meets each week, and gives a lecture and lesson on this system of work. Considering the state of affairs one year ago, the results are very encouraging. A large amount of faithful work has been done, both by supervisor and teachers in the study of this system, and we have every reason to believe that it will prove to be entirely satisfactory.

Respectfully,

A. HYDE SCHOOLCRAFT.
G. FORREST MARTIN.
HUGH F. FARLEY.

Report of the Superintendent.

OFFICE OF THE SUPERINTENDENT OF SCHOOLS,
DECEMBER 31, 1896.

GENTLEMEN OF THE SCHOOL COMMITTEE:

In accordance with the Rules of the School Committee I have the honor to submit the following as my report for the year 1896:

SUMMARY OF STATISTICS.

Value of real and personal property	$70,906,540
Population, estimated (84,359 by census of 1895) .	90,000
Number of polls	25,330
Increase for the year	1,585
Number of children between five and fifteen years of age, May 1, 1896	16,390
Ward One, 1085; Ward Two, 1938; Ward Three, 1634; Ward Four, 1936; Ward Five, 1431; Ward Six, 2072; Ward Seven, 3334; Ward Eight, 1575; Ward Nine, 1385.	
Number of public schools	45
One High, nine Grammar, thirty-two Primary, two Mixed, one Training.	
Number of Kindergartens	12
Number of public school buildings	48

Number of school rooms in actual use . . . 250

High, 20; Grammar, 104; Primary, 107; Mixed, 4; Kindergarten, 13; Manual Training, 2.

Number of elected teachers employed Dec. 31, 1896. 255

High School, six men, fifteen women.

Grammar Schools, nine men, eighty-seven women.

Primary Schools, one hundred and two women.

Training Schools, four women.

Mixed Schools, three women.

Kindergartens, twenty-one women, one Supervisor of Kindergartens.

Two teachers of penmanship.

One teacher of drawing.

One teacher of music.

One teacher of sewing.

One teacher of elocution and physical culture.

One military instructor.

Number of temporary teachers employed. . . . 35

Number of teachers of Evening Schools, term of 1895–'96 160

Whole number enrolled in Evening Schools, term of 1895–'96 5,091

Whole number enrolled in day schools . . . 12,291

Whole number enrolled in Kindergartens . . 922

Average number belonging to day schools . . 9,516

High, 678; Grammar, 4452; Primary, 4277; Mixed, 109.

Average number belonging to Kindergartens . 479

Average attendance 8,784

High, 643; Grammar, 4113; Primary, 3935; Mixed, 93.

Average attendance in the Kindergartens . . 393

Average number belonging to each teacher . . 39

High, 31; Grammar, 42; Primary, 38; Mixed, 27.

Average number belonging to Kindergartens . . 19

Average number belonging to each room . . 40

High, 39; Grammar, 43; Primary, 40; Mixed, 27.

Average belonging to each Kindergarten . . . 37

Average per cent. of attendance	92
High, 96; Grammar, 92; Primary, 92; Mixed, 85.	
Average per cent. of attendance in Kindergartens .	82
Average cost of each pupil, for tuition only, based on the average number belonging . .	$18.01
High $30.08; Grammar, $15.69; Primary and Mixed, $14.93.	
Average cost of Kindergartens	$19.32

RECEIPTS AND EXPENDITURES.

RECEIPTS.

Appropriated and assessed	$210,000.00
Loan	30,000.00
Received from other sources	25,039.66
Total standing to credit of schools . .	$265,039.66

EXPENDITURES.

Paid to teachers of Day Schools: —			
High School			$20,441.50
Grammar Schools.—	Bartlett School .	$6,554.72	
	Butler School .	9,945.07	
	Edson School .	7,801.99	
	Green School .	7,639.50	
	Highland School	10,601.57	
	A. Lincoln School	5,722.40	
	Moody School .	7,138.40	
	Pawtucket School	5,123.39	
	Varnum School	9,305.83	
			69,832.87
Primary and Mixed Schools			65,489.16
Training School			9,256.09
Kindergartens			9,514.25
Teachers of Penmanship			2,020.00
Teacher of Drawing			1,250.00
Amount carried forward			177,803.87

Amount brought forward		$177,803.87
Teacher of Music		1,219.25
Teacher of Sewing		785.00
Military Instructor		250.00
Total paid for instruction in day schools inclusive of military instruction in High School		$180,008.12
Evening Schools: —		
Teachers	$16,390.00	
Janitors	1,825.00	
Lighting	1,659.21	
Incidentals	222.15	
		20,096.36
Evening Drawing School: —		
Teachers	$3,770.00	
Janitors	84.00	
Lighting	236.41	
Incidentals	273.94	
		4,364.35
Fuel		15,869.70
Bills for hauling coal		132.74
Water		1,803.50
General repairs, labor, material, etc.		683.37
Bills of Supt. of Public Buildings for lumber, making and repairing furniture, blackboards, etc.		1,827.03
Text books		6,960.03
Supplementary reading		610.26
Drawing books, writing books, paper, pens, lead-pencils, ink		3,426.57
Incidentals on account of same		127.21
High School Battalion		316.55
High School graduating exercises		191.80
Rebinding school books		175.70
Taking census of school children		737.45
Rent of telephones		172.59
Board and care of horses, repairs on wagons, etc.		643.17
Power for ventilating purposes		224.31
Amount carried forward		$238,420.71

Amount brought forward	$238,420.71
Sewing	120.72
Rent of rooms for school purposes	2,743.86
Lowell Gas Light Co., gas for day schools	498.65
Janitors' supplies	795.55
Kindergarten material, fitting up, etc.	1,483.68
Apparatus and material for High School	597.53
Printing	1,699.79
Pianos	1,238.00
Cabinets	30.00
Bills of Middlesex County, for board of truants	3,704.27
Kindergarten Janitors	232.50
Salary of Superintendent	3,000.00
Salary of Truant Commissioners	3,014.42
Salary of Supervisor	96.04
Clerical service	198.50
Material for Manual Training School	376.71
Material for Lowell Training School	676.22
Miscellaneous	2,709.98
	$261,637.13
Total standing to credit of schools, Jan. 1, 1897	3,402.53

SCHOOL HOUSES.

RECEIPTS.

Balance undrawn Jan. 1, 1896	$ 124.76
Appropriated and assessed	32,000.00
Received from other sources	11,706.99
Total	$43,834.75

EXPENDITURES.

For janitors	$20,917.32
General repairs	22,108.38
Balance undrawn Jan. 1, 1897	809.05
Total	$43,834.75

ADDITION TO A. LINCOLN SCHOOL.

Receipts	$20,000,00
Expenditures	18,565.25
Balance on hand Jan. 1, 1897	$1,434.75

NEW SCHOOL HOUSES.

Balance on hand Jan. 1, 1896	$66,027.50
Receipts	200,000.00
	$266,027.50
Expenditures	215,027.50
Balance on hand Jan. 1, 1897	$51,000.00

LEXINGTON AVENUE SCHOOL.

Transferred	$6,500.00
Expenditures	4,292.33
Balance on hand Jan. 1, 1897	$2,207.67

ADDITION TO PLAIN STREET SCHOOL.

Transferred	$17,000.00
Expenditures	16,382.17
Balance on hand Jan. 1, 1897	$617.83

BARTLETT SCHOOL.

Transferred	$98,000.00
Expenditures	67,063.83
Balance on hand Jan. 1, 1897	$30,936.17

CARTER STREET SCHOOL.

Transferred	$23,527.50
Received from sundry persons	4.48
	$23,531.98
Expenditures	21,200.28
Balance on hand Jan. 1, 1897	$2,331.70

ADDITION TO VARNUM SCHOOL.

Transferred	$25,000.00
Expenditures	59.92
Balance on hand Jan. 1, 1897	$24,940.08

PINE STREET SCHOOL.

Transferred	$20,000.00
Received from other sources	4.37
	$20,004.37
Expenditures	17,002.88
Balance on hand Jan. 1, 1897	$3,001.49

The number of children between the ages of 5 and 15 in the city in May, 1895, as returned by the census enumerators, was 13,343; the number May 1, 1896, as given on page 23, is 16,390, an increase so great as to require some explanation.

Section 3, chapter 46, of the public statutes, makes it the duty of the school committee to annually ascertain and record the names and ages of all children in the city between 5 and 15 years of age on the first day of May. In compliance with this statute the committee elects enumerators, one for each ward, who are supposed to take the census as required, and whose returns are all bound up together in one book for a permanent record. This record is in almost daily use by the truant officers, and it is very desirable for many reasons that the census should be as accurate as possible. The returns for different years, however, have shown such unexplainable fluctuations as to make their accuracy a matter of just suspicion, and in the report for 1895 I outlined a plan for testing their correctness. This plan, which was tried in May of this year, was simply to obtain from teachers a complete enrollment of their schools May 1, and to compare this, name by name, with the census taken by the enumerators. To make the comparison even fairly accurate it was, of course, necessary to have the names of pupils on the time books of the private schools as well as of those which are public, and I wish here to express my deep obligation to the teachers of the private schools, all of whom, with a single exception, gave me with great promptness the returns asked for. And they have, I trust, received their reward, as have the teachers of the public schools, in the finding and return to school of a considerable number of absentees.

The number of names returned by the enumerators was 13,619, and the number of additional names reported by the teachers as actually in school May 1 was 2771, making, as before stated, a total of 16,390. It is, therefore, certain that the census failed to reach fully 20% of the children of the city. Nor is this

all. The 2771 children missed by the enumerators were found by the teachers because they were in school; others not in school would have been still more likely to be skipped by the census takers, as this would be the class, and the only class, having an object in evading them. The value of the census is, therefore, much less than had been supposed. In some districts it reached but little more than half the children. It cost $737, and it is very doubtful whether its value would justify the expense. As it is required by law, it must, I suppose, be continued, but certainly some means should be found to make it less costly and more nearly accurate.

The name by name comparison of the census with the school enrollment, however, seemed at first to show, on the other side, that children not attending school were far more numerous than had been supposed. Several hundred names were reported in the census which were not found in the school lists, and all such were placed in the hands of the truant officers for investigation. Unfortunately the census comes just at the end of the school year, some of the returns not having been received until after the schools were closed for the summer vacation, and to postpone investigation until September was to lose nine-tenths of its value. Could the census be taken in October its value would be increased tenfold, and a change in the law which would permit a change in the time of taking the census is well worth working for. Having, however, some of the returns in June we made such use of them before vacation as the time permitted, and the work was promptly resumed in September, with the very gratifying result that the cases then really needing attention were found to be very few. Many were cases of mistaken identity, due to defective census returns. It is not surprising, for instance, that Esther Evelyn should not be easily found when her name was really Esther Evelyn Denison, and this is but a sample of many mistakes. Many cases were excusable on account of sickness, absence from the city, etc.; in

others, pupils absent in June were in their places in September, and altogether less than a dozen have thus far been found to really need attention. I confess that the sight of the long list of names as I saw it in June disturbed me greatly, and I am now equally elated to find that the condition of affairs instead of being worse than I had supposed is really much better. The investigation, however, has done good, and the school enrollment should again be taken in May next, and the same comparisons made as before.

In school attendance there has been a steady increase, which has been a little larger this year than last. In 1895 there was a gain in average number of pupils belonging of 242, exclusive of the kindergartens, where there was a further gain of 139, making a total of 381. In 1896 the gain in the primary, grammar and high schools has been 372, and in the kindergartens 159, a total of 531. In the average number belonging to the schools, therefore, there has been in two years a gain of 912, or more than ten per cent.

The total cost of the schools, including the evening schools, was $261,637.13, an amount $15,930.36 greater than the year before. This increase was not, however, due to extravagance, for the school committee of 1896 has been more consistently economical than any I have known. On the last Monday of 1895 twenty-one new teachers were elected, all being needed, of course, but the salaries of these teachers alone would account for a very large part of the increased expense of 1896. As a matter of fact, the salaries paid to teachers of day schools increased from $167,649.48 in 1895 to $180,006.12 in 1896, a fact not due at all to any act of the committee, but to the increase of teaching force necessitated by the increase in the number of pupils. The cost of coal increased from $13,420 to $15,869, the rent of rooms for school purposes from $1,043 to $2,743.86, and so on through a score of increases made necessary by the larger number of children to be taught, while in those items to which it was possible to apply the pruning knife there has been a considerable decrease of expense. We close the

year with an election of eleven more teachers, and the steady employment of thirty-five temporary ones, and next year's expenses will inevitably be larger than those of this year. Not less than $275,000 should be appropriated for schools in 1897, and this will not be much more than one-half the sum asked for in Worcester, a city but little larger than Lowell.

SCHOOL HOUSES.

No new school houses were built in 1895, and the increase in school attendance made the need of further accommodations so imperative that a loan of $200,000 outside the debt limit was made for new school houses, early in 1896, under a special act of the legislature. With this money, and with that from the sale of the old city hall, the city council has begun the erection of more school houses than have ever before been commenced in a single year. The list includes a new 16-room house on Wannalancit street, to take the place of the old Bartlett school building; a new 8-room house on Carter street to take the place of the two small wooden buildings there; a 4-room addition to the Lincoln school house; a new 4-room primary school house on Pine street; a 4-room addition to the Plain street house, and a new 2-room house on Lexington avenue to take the place of the old Varnum avenue school house. The first three of these buildings are of brick, the others of wood. Under the vigorous and business-like management of the Committee on Lands and Buildings and the direction of the efficient Superintendent, the work has been pushed with more speed than ever before, and one, the building at Plain street, will be ready to occupy at the beginning of the new term, Jan. 4. The others bid fair to be finished early in 1897, or by September at the latest, a fact for which the school department is profoundly grateful.

The building of two other houses, asked for in last year's report of the School Committee and both sorely needed, has been proposed, but has been delayed by difficulty in securing the land on which to build. In Pawtucketville one primary room now has some seventy scholars, with two teachers; an assembly hall furnishes an abiding place for an overflow grammar room, while the kindergarten is housed in the vestry of a church. A new primary school house of four rooms should be built there at once, and if it were already erected there are scholars enough to occupy all its rooms, and the grammar school building would have but one unoccupied room as provision for the rapid increase of numbers which the recent opening of the Moody street bridge has made certain.

In Centralville the committee has wished to build an 8-room addition to the Varnum school house, but has been unable to purchase the land on terms it has been willing to grant. Accordingly all the legal steps have been taken to seize the land, and action is said to be delayed only because no use could now be made of the land before spring. Unless, therefore, the new committee shall prove unwilling to carry out what the committee for 1896 has planned, the land will be taken and work begun as early as possible in 1897. Nor can this be done too soon. The school now has two overflow rooms at Aiken avenue, one in the engine house on Fourth street, two classes with two teachers in one room at the main building, and more scholars to come in February with no place to put them. The location which will next need attention is that of the Lakeview avenue school, where there are now six teachers in four rooms and at least fifty more children than can possibly be accommodated with either health or comfort. A 4-room addition, or a new 4-room house, should be built here at once.

The city already owns a lot of land on John street on which to erect a building to be used in part by the Manual Training School. This work was still in so experimental a stage with us

last year that I was in no hurry to build, but more recent events have shown that the department is never likely to get the equipment it needs until it gets a building, and it is greatly to be hoped that a house on the lot named will be erected in 1897.

SCHOOLS AND TEACHERS.

Following are the changes in the roll of teachers:

DIED.

	Term of Service.
Abbie E. French, Bartlett School	22 years.

RESIGNED.

	Term of Service.
Laura F. Howe, Butler School	40 years.
Agnes L. Donoghue, Edson School	9 "
Margaret J. King, Charles Street School	5 "

TRANSFERRED.

Annie E. Donovan, from the Training School to the Edson School.

Annie E. King, from the Training School to the Highland School.

Mary A. Farnham, from the Chapel Street School to the Plain Street School.

Adelaide Crowley, from the Plain Street School to the Pond Street School.

Lizzie A. Molloy, from the Pond Street School to the Chapel Street School.

Alice B. Besse, from the Oaklands to the Mammoth Road School.

M. Etta King, from the Centralville Kindergarten to the Pawtucketville Kindergarten.

Louie I. Smith, from the Highlands Kindergarten to the Moody Kindergarten No. 2.

N. Grace Taylor, from the Mt. Vernon Street Kindergarten to the Franklin Kindergarten.

Marietta G. Gormley, from the Agawam Street Kindergarten to the Chapel Street Kindergarten.

ELECTED.

Frank R. Rix, A. B., M. D., to be Supervisor of Music.
Blanche A. Cheney, to the Bartlett School.
Adelaide A. Jackson, to the Training School.
Mary E. O'Connor, A. B., to the High School.
Ellen A. O'Connell, to the Charles Street School.
Rose Donnelly, to the Cheever Street School.
Elizabeth F. Blandin, to the Bartlett School.
Grace G. Marren, to the Butler School.
Clare S. Reed, to the Training School Kindergarten.
Grace B. Alvord, to the Pawtucketville Kindergarten.
Helen W. Noyes, to the Franklin Kindergarten.
S. Hortense Tabor, to the Mt. Vernon Kindergarten.
Clara M. Everett, to the Centralville Kindergarten.
Katherine C. Early, to the Chapel Street Kindergarten.

In the death of Miss French the city lost one of its most earnest and efficient teachers. She had the gift, far more valuable than that of imparting text book knowledge, of winning for herself the respect and love of her pupils, and of elevating the moral standard of the room. There are school rooms in the world, if not in Lowell, where badness is at a premium and the worst scamp is the greatest hero; in Miss French's room the reverse was always true and badness of any kind was discreditable, as it ought to be. Twenty-two years of such service has made the city and the world richer and better, and her works do follow her.

This report is not the place for eulogies, especially of those who are still with us, and yet I think every teacher and some thousands at least of our citizens would be sorry to have Miss Howe's long period of exceptionally faithful service pass unnoticed. For forty years she had been in her place, with scarce the loss of a day, and when finally ill health took her out of the ranks all who knew her keenly felt the loss, and the regard and sympathy of all follow her in her retirement.

Misses Donoghue and King left to change their names, and regrets for their loss from our ranks, while real and great, are less in order here than the hearty congratulations we send after them.

HIGH SCHOOL.

The year has been a prosperous one at the High School, with a larger attendance and more graduates than ever before. The attendance, indeed, has become so large as to make it impossible to handle classes to the best advantage. In September there were twelve more students than seats. The surplus could, indeed, be accommodated with chairs in the library without great inconvenience, but the large classes necessitated by so full a school are a more serious matter. The school should expand, not contract; other departments are desirable; more teachers are greatly needed, but none of these desirable things can be brought about without more room. It is, indeed, almost certain that next year the assembly hall will have to be used for recitation rooms. The hall is already in daily use for music, elocution and physical culture classes, as well as for general exercises, and its withdrawal from these uses will be a serious loss. As before stated, the city already owns the land just around the corner on Paige street on which to erect a building to furnish the needed relief, as well as to give the High School regiment a drill room and the manual training class an abiding place, and this building should certainly be erected in 1897.

The exercises of the graduating class were held in the hall of the High School building Tuesday evening, June 24. Following are the programme, the names of the graduates and of the Carney medal scholars :

PROGRAMME.

1. MARCH. "King Cotton." . . . . . *Sousa*

AMERICAN ORCHESTRA.

2. OVERTURE. "Masaniello." . . . . . *Auber*

AMERICAN ORCHESTRA.

3. MUSIC. "Night's Shade No Longer." . . . . . *Rossini*

SEMI-CHORUS OF YOUNG LADIES AND L. H. S. GLEE CLUB.

4. SALUTATORY. "Celia Thaxter." *Written by Sallie Ardelle Burgess*

EDITH CLARA MERCHANT.

5. MUSIC. "Thy Flow'ry Banks, O Lovely River!" . . *Meyerbeer*

SEMI-CHORUS.

6. ADDRESS.

HON. SOLON W. STEVENS.

7. SELECTION FROM LUCIA DE LAMMERMOOR. . . *Donizetti*

AMERICAN ORCHESTRA.

8. VALEDICTORY. "Peace and War."

JAMES BRUCE GILMAN.

9. MUSIC. { *a.* Wanderer's Night Song. . . . . *Rubinstein*
{ *b.* Now the Evening Hour. . . . . *Flotow*

SEMI-CHORUS.

10. PRESENTATION OF CARNEY MEDALS.

SUPERINTENDENT A. K. WHITCOMB.

Graduates for 1896.

FOUR YEARS.

Cecil Landon Adams.
Walter James Barris.
James Bruce Gilman.
Robert Edward Goodell.
Alexander James Harper.
Frederick Andrew Leahey.
Owen Patrick McQuaid.
Benjamin Franklin Nourse.
Albert Adams Smith.
Charles Augustus Wells.
Bertha Munroe Allen.
Katharine Faulkner Baker.
Alice Prentice Barrows.
Mabel Evelyn Brooks.
Mabel Edna Brown.
Oma Alathea Brown.
Anna Isabel Cassidy.
Bertha Sewell Copeland.
Marie Arvilla Davis.
Katharine Hayes Law.
Edith Clara Merchant.
Ella May Penn.
Elsie Maude Puffer.
Rose Elizabeth Sherman.
Ethel Winifred Whitcomb.
Marguerite Atkins Willey.
Evelyn Anderson Wilson.

THREE YEARS.

Ralph Roscoe Bachelder.
Frank Alexander Barris.
Henry Fuller Carter.
Clarence Bertram Livingston.
Henry James Maguire, Jr.
William Adams Mitchell.

Jonas Steindor Chalmarson.
Ernest Dudley Chase.
Frank William Coughlin.
John Joseph Coughlin.
James Hooley Cuttle.
Horace Roswell Edwards.
James Aloysius Finnerty.
Raymond Frye.
Christopher Joseph Hagan.
James Leo Halloran.
Haven Goodwin Hill.
Herbert Dearden Hope.
John Birger Albert Johnson.
John Joseph Keating.
Frederick George Kershaw.
Clifton Perigo Kimball.
Edward Fay Lamson.
James Oliver Lee.
Irving Chester Lewis.
Albert Henry Varnum.
Edgar Samuel Vinal.
James Walsh, Jr.
William Irving Wiggin.
Sallie Ardelle Burgess.
Agnes Rose Callahan.
Charlotte Marion Cheney.
Agnes Eleanor Coburn.
Grace Elizabeth Coburn.
Florence Winthrop Conant.
Corinna Gardner Cover.
Mary Elizabeth Crotty.
Gertrude Beatrice Crowley.
Sara Maria Deane.
Helen Amelia Dimon.
Alice Aloysius Donahue.
Mary Josephine Donahue.
Florence Woodward Ela.
Alice Ella Frances Emmott.
Laura Isabella Faulkner.
Julia Georgiana Foy.
Maude Merrill Hardy.
Grace Edith Hatch.
Eda May Hathaway.
Katherine Gertrude Howard.
Percy Harlan Moody.
James Joseph Morris.
William Patrick Joseph Morrissey.
Edward Martin Murphy.
James William Myers.
Thomas Nesmith, Jr.
George Leonard Peirce.
Arthur George Phelan.
Murray Hovey Pratt.
Napoleon Octave Provencher.
Guy Henry Richardson.
John Joseph Roark.
John Joseph Shea.
Alexander Shields Smith.
Leon Daniel Sullivan.
Carl Noyes Thomas.
Edward Byron Trueworthy.
Herbert Lewis Trull.
Arthur Henry Tuttle.
Lillia Mary Warson Huntley.
Julia Ann Kenney.
Hortense Marie Lamere.
Florence Moore Lancey.
Edith Maud Macpherson.
Delia Catharine Maloney.
Lena Mellen.
Mabel Rose Miller.
Florence Anna Milner.
Mamie Elizabeth Jane Moffatt.
Lena Albertine Monroe.
Rose Marie Mullaney.
Sarah Ann Mullaney.
Mabel Helena Norton.
Elizabeth Anna Page.
Annie Lovejoy Paul.
Carrie Louise Philbrick.
Alice Louise Richardson.
Harriette Eugenia Richardson.
Gertrude Marden Sewall.
May Grace Simms.
Lizzie Geneva Sturtevant.
Jessie Matilda Todd.
Ethel Deane Walch.
Grace Jeannette York.

CARNEY MEDAL SCHOLARS, 1896.

Sallie Ardelle Burgess.
Bertha Munroe Allen.
Delia Catharine Maloney.
James Bruce Gilman.
Guy Henry Richardson.
Horace Roswell Edwards.

PRIMARY AND GRAMMAR SCHOOLS.

The primary schools have received in 1896 2668 pupils and have graduated 1035, of whom all but three entered the grammar schools. The latter have received 1504 new scholars, and have graduated 322, of whom 261 entered the high school. This statement requires but few words, but stands for a whole year of faithful earnest work, in some cases in the face of discouraging conditions. The first grade has been so crowded as to require two teachers in one room at the Carter, Lyon, Plain, Mammoth Road, and Lakeview primary schools all the year, and in several others a part of the year. Happily the overcrowding of all except the last two will be relieved by buildings now being erected.

In course of study or method of work no radical changes have been made. The text books, Fiske's and Thomas's histories and Frye's geographies have been added to the authorized list, and their optional use is giving good satisfaction.

Teachers have shown their desire for improvement by patronizing and paying for several courses of lectures, including five on language and grammar by Miss Sarah A. Arnold of Boston, two by Dr. J. W. Dickinson on principles of teaching, and two, one on geography and one on child study by Will S. Monroe. The Primary Teachers' Association has held several well attended meetings, and the same is true of an organization of the first assistants in the grammar schools. A large number of teachers have also taken a course of lessons of Miss Russell in botany, and of Miss Rea in geology. About fifty are members of the Middlesex Women's Club, and are doing considerable work in its various

educational departments, and altogether those who are not making some distinctive effort at self improvement and professional advancement are in a small minority. All of which can but tend to lift teacher and school out of ruts, and improve both.

TRAINING SCHOOL.

The number of graduates of the Training School, varying from 23 at the beginning of the year to 30 at its end, has not been sufficient to supply the demand of other schools for substitute and temporary teachers, and the committee has found it necessary to give temporary employment to some emergency teachers who have never had professional training. This fact made it desirable to graduate larger classes from the Training School. From 1893 to 1896 classes averaged about four apiece, but beginning with the class which entered in September, 1895, classes have been increased to an average of twelve. Increasing the number threefold has increased the work in pretty nearly the same ratio. To give normal instruction to twelve, to direct the teaching of twice that number, and at the same time see that the children of the school suffer no loss at the hands of apprentice teachers, is a gigantic task, and that it should be so well done,—for it is well done—reflects the highest credit upon the principal and her assistants. The school certainly was never in better condition, or rendering the city a better service.

Since the graduation of the class of June last there has been but small call for the services of the emergency teachers, the work done by them in December amounting to no more than about fifteen days. With the graduation of a still larger class next June it is probable that the need of the extra teachers will entirely cease, a condition greatly to be desired by all except the young ladies who would like positions. It is only fair to them, however, to say that despite the lack of both training and experience some of them

have done excellent work, and the city would be no loser by their permanent employment.

Following are the names of the graduates:

CLASS OF JANUARY, 1896.

Grace R. Sanders.
Goldie M. Gardner.
Gertrude C. Ring.
Ida L. Samuels.
Alice C. O'Brien.
Alice M. Magoon.
Nellie C. Mahoney.
Mary A. Fay.

CLASS OF JUNE, 1896.

Emily S. Abbott.
Lura E. Aldrich.
Gertrude L. Sponholtz.
Lena M. Robinson.

KINDERGARTENS.

Four new kindergartens have been opened during the year, making twelve in all. The new ones are located in Pawtucketville, the Franklin school house on Chapel street, and in the Moody school house, the last being an outgrowth of the one already there. All are doing excellent work, and are very popular. Their teachers work together, and with the supervisor, with a zeal and harmony which gives to them that strength which comes from union, and ensures their continued growth and advancement.

A class of fifteen, six residents and nine non-residents, graduated from the normal department in June. All the residents have since been elected to permanent positions in the city. The others will probably be open to offers from other places, and every one can confidently be recommended as able and willing to do good work.

Following are the names of the class of June, 1896:

Grace Brewster Alvord.
Flora Louise Bradford.
Ella Wright Dickinson.
Mary Biden Bartlett.
Linda Frazure Chisholm.
Katharine Cecelia Early.

Clara Manda Everett.
Hattie May Hill.
Anne Rebecca Howard.
Clare Sawyer Reed.
Edith Belle Forsaith.
Bertha Maude Hawkesworth.
Helen Westcott Noyes.
Susan Hortense Tabor.
Grace Ellen Winkley.

MANUAL TRAINING.

Work in manual training has been continued during the year in the two rooms previously occupied in Odd Fellows block.

The number of students of the junior class in the high school who elected to take manual training in September, 1895, was twenty-four. A little later the course was opened to twenty-five upper class men, the most of whom either left the school during the year or graduated in June, 1896, leaving but one or two to continue the work in September. Of the twenty-four juniors seventeen were in the regular manual training course, taking two academic studies with the drawing and woodworking, and nine were in other courses and carried three academic studies. During the year ending in June, 1896, one of the latter left school, three dropped manual training, and three dropped one academic study to continue the regular manual training course. Of the seventeen who started with but two academic studies, three left school and two changed to an academic course. The work done by the class was very fine, and won high praise from expert draftsmen and master builders who examined it.

The course provides for lathe work at the beginning of the second year, but the Committee on High School, hoping for the early erection of a building on John street for permanent quarters, were unwilling to incur the expense of renting more rooms and putting costly machinery into them for temporary use. In the lack of such facilities it was only possible for the second year scholars to go on with drawing and carpentry. This naturally proved discouraging, and only ten cared to continue, and but

twenty-four juniors chose to begin in September, 1896. Fourteen upper class men were also allowed to take manual training as a fourth study, making forty-eight in all. Of the upper class men ten were necessarily put in an afternoon class; five work with the advanced class of ten, and the twenty-four juniors form a division by themselves. Of the latter three have left school since the beginning of the term, so that the total number at date is forty-five.

A few students have undoubtedly chosen manual training in the belief that it would be an easier course, and when such has not proved to be the case they have dropped out or failed to do good work, but the majority are interested, some of them greatly so, and are doing well. Permanent quarters are the one thing now necessary to secure the greatest interest and the best results and in the lack of them the committee, as it seems to me, is bound to provide some way in which the work can be carried on in accordance with the authorized course of study, and doubtless this will be done.

COURSE OF STUDY.

No attempt has been made during the year to change the course of study, though the part relating to grammar schools has been rewritten for this report. The rules of the committee forbid changes during the school year, and the rewriting, therefore, has been done not to change the plan of work, but simply to translate a course stated in text book pages into one of subjects required.

Courses of study are always unsatisfactory in content as well as form, and that of Lowell offers no exception to the rule. Local conditions make impossible many things which would be very desirable under other circumstances. The "enrichment of the grammar school course" has become a fad in many places, and the school officer is most in honor who has added most to the course.

Latin, French, algebra, geometry, civil government, physical geography, physics, and the elements of a half dozen natural sciences are but a part of the additions. I am not ignorant of what has been done elsewhere, and I sympathize, in part at least, with the changes which have been made, but I do not yet see the fitness of some, or the feasibility of others for Lowell.

Enrichment of the grammar school course, or the bridging of the alleged gap between the grammar schools and the high school, has been with us mainly limited to three points:

1. We are doing a little work in elementary natural science, under the names of physiology, nature study, etc. However valuable these may be in themselves I do not think they have affected the work in the high school to any appreciable extent.

2. A half dozen literary masterpieces, a knowledge of which is required in the high school, are now read, studied, and to some extent made the subjects of examinations in the grammar schools. This is of advantage in itself, and, as far as it goes, in reducing the work to be done in the high school.

3. Elementary algebra is begun in the grammar schools. The questions for an examination last June were made by a high school teacher, and were such as he would give to his own classes. That the scholars who took this examination attained a higher rank in algebra than in any other subject would seem to prove that good work had been done. The pupils enjoy the study because it comes as the one new thing they have in the midst of tiresome reviews, as well as because of its direct connection with the high school, and altogether its introduction has worked well.

Three things might be done:

1. A little of physics and geometry might be taught to all pupils in the higher grammar grades.

2. Some other studies, like Latin for instance, might be taught to those pupils who can do more work than the average of

the class, and who wish to do so. Under this plan there would be no division of classes on the ordinary work of the school, but the privilege of taking an extra study would be offered to those able and willing to do it.

3. As outlined more fully in my report for 1892, by the formation of separate classes at the end of the seventh school year. Such pupils would omit geography, history, drawing, etc., and continuing arithmetic and English, add Latin and algebra. In this way it would, I believe, be perfectly feasible to shorten the road to college by two years with no appreciable loss to those who finally take a college course. Such classes should be by themselves, and the new building to be erected on John street should afford appropriate quarters for them. I commend these suggested possibilities to the attention of parents, teachers and the committee.

MEDICAL INSPECTION.

No consideration is more important than the health of children. Education gained at the expense of health is a loss, and a sound body is a price too great to pay for even a whole world of knowledge. Nor do unsanitary conditions at school affect the children alone. One seventh of Lowell's population is in school, and this seventh inevitably carries disease, if it finds it in the school house, into every family in the city. Hence the superlative importance not only to the children, but to every citizen of expert supervision of the schools, the school houses and of all the physical conditions under which the children live in school.

Such supervision is common in Europe, and is fast gaining a foothold in this country. Most of the great tuition schools abroad, and many here, have a resident physician for the prevention rather than the cure of disease, and the value of their work is beyond question. In the public schools medical inspection, where

there is any, usually takes the form of visits at intervals of several months rather than of daily calls, Boston being the only city of which I happen to know in which a daily inspection is now made, though it has just been voted in New York. In Boston forty-nine physicians are employed at a nominal salary of $200 per annum, to visit every school each day and examine pupils of whose fitness to remain the teacher has a doubt. In the first month of such visitation 437 sick children were found in school, among whom were 37 ill with diphtheria and 104 with scarlet fever. These startling figures tell their own story, and leave no need of argument to prove the value of the work. The death rate among children in the great cities of London and Paris is less than in most American cities, a result which physicians attribute to the medical supervision of the schools there, and certainly it is hard to see what other conditions favor children there more than here.

Impressed by facts like these, the mention of which might well fill a volume, I brought the matter to the attention of the School Committee last April, and asked for medical supervision for the schools of Lowell. The Committee on Hygiene, to whom the request was referred, presented a favorable report, which, however, failed of adoption, and the same fate befell a second favorable report from a special committee to whom the matter had again been referred. The objections made were the experimental character of the work and the expense, while another objection, not named but probably felt, was the difficulty in agreeing upon a corps of physicians, the first report having suggested nine and the second six. I am, however, so thoroughly convinced of the value and the need of such inspection and supervision that I cannot refrain from another reference to it, and I fully believe that it will sometime be an accomplished fact in Lowell.

A phase of the same subject which has been attracting widespread attention in recent years has been the study of children physically defective, the defects most noted being those of sight

and hearing. Tests in Europe and in this country have shown a startling prevalence of these defects, which have often been unsuspected by either child or parent. A child, for instance, blamed for stupidity because he had learned nothing in several months, was found to be so defective in vision that he had never seen a letter clearly enough to distinguish it from others. And scores of cases as pitiable, where not only education but health and life itself have been imperiled or lost through such unsuspected deficiencies have come to my personal knowledge, and have brought me to feel that any one who reveals such defects and puts them in the way of cure or mitigation is second to none as a public benefactor. In other cities the per cent. of pupils having less than one half of normal vision has varied from twenty to thirty-five, the last being the proportion in Utica, N. Y. And to discover such cases in the Lowell schools, in order that parents may, if they please, secure for their children such treatment as will most benefit them, is one of the reasons why I plead for medical inspection.

I have not myself yet seen the need of daily visits by many physicians. My ideal is to have one, who shall give his whole time to the work, though I should not at all object to a co-operating board of daily visitors at a nominal salary. The man selected should be an expert in sanitation as well as a skilled physician. He should go to each house, should begin with the basement, and see that it is clean, dry and well ventilated; should inspect the plumbing and see that sanitaries are in perfect order; should enter the school rooms and have regard to temperature, ventilation, light, curtains, the position and use of blackboards, the size and position of seats and desks; should test the air of school rooms for carbonic oxide or other noxious gases; in short should interest himself in everything which pertains to the physical well being of the child. He should be constantly on the watch for contagious diseases, should have power to send home children too ill to be in school, and in this should be in close touch with the board of

health, of which he might well be a member. He should test for physical defects of sight and hearing, and should see that parents are notified of matters needing their attention, and so on through a round of useful duties too numerous to be specified. It is true that the duties first named, those relating to sanitation, are to some extent performed by the Superintendent of Schools, who does something in this line almost every day, but the present incumbent frankly confesses a lack of time, and of any especial fitness for the work, in both of which particulars a medical inspector should and doubtless would be very greatly his superior.

Though lacking both time and special fitness, the superintendent, by the permission of the committee and with the help of the teachers, would have undertaken a test of the eyesight of the pupils of the public schools had not some public spirited physicians generously volunteered to assist in the matter, and he now rejoices both in the work now to be done, and in the hope that it will prove an entering wedge to something more extensive and which may yet realize the ideal before mentioned.

EVENING SCHOOLS.

In January, 1896, the supervision of the evening schools was intrusted to the superintendent of the day schools for the first time since 1886. The attendance at the time was very large, and the schools were generally in good condition, reflecting credit on their previous management.

With the opening of the new term in October an attempt was made to extend the grading of the elementary schools, to secure class teaching instead of individual instruction where such a change was feasible, and to further systematize the work in many ways. Teachers' positions were limited strictly to the holders of sixth grade certificates, such certificates being given to teachers of successful experience in past years, to high school graduates, and

to others as the reward for passing an examination. The minimum age for teachers was raised from 18 to 20 years, and in most cases great care was exercised by members of the committee in their selection. Rules for the guidance of teachers were also formulated, printed and distributed by the committee, thus further systematizing the work. Order, discipline and attention have been insisted upon, and may now fairly be said to prevail in every school in the city. The evening schools are costly, but they are all *schools* in the strict sense of the word, and pupils are everywhere studying, and some are learning with surprising rapidity. Pupils who could speak no English, nor read or write in any language, have actually learned in four months to read in a second or third reader and to write passable English in a fairly legible hand. Those who have done so much in so short a time are the exceptions, of course, but they show the possibilities for good to be found in the evening schools. Scholars who already have the rudiments of an education, but who wish to further improve themselves, also find excellent facilities for doing so in the higher rooms of the elementary schools, and in the high school where five or six hundred students are doing as earnest and as commendable work as can be seen anywhere. It is the desire of the committee to make the evening schools places where self-respecting boys and girls and men and women may be pleased to go, where they will be sure to receive kindly attention and good teaching, and where they will not be annoyed or driven away by the unworthy. And in this I think they have succeeded, and if the success has been won at some cost to the unworthy it has been a result which could not well be helped. That the number of the unworthy may be less next year a careful record has been kept, and all expelled, disorderly or idle pupils will be refused registration next year, ensuring a cleaner class from the start.

The studies of the elementary schools include reading, writing, spelling, arithmetic, grammar and history. In the high school

an opportunity is offered to study arithmetic, grammar, rhetoric English literature, algebra, geometry, French, civics, penmanship, book-keeping, chemistry, stenography and typewriting. Entrance to the high school is secured by the possession of a day grammar school diploma, a certificate of graduation from an elementary evening school, or by passing an examination in English language and grammar and in the fundamental operations of arithmetic, including fractional as well as integral numbers. Diplomas of graduation are awarded to those who successfully complete the work of two years in chemistry, or in stenography and typewriting, or of three years in other studies. In the general course arithmetic and grammar, both elementary and advanced, are required of all. Other studies are elective.

Statute law prohibits corporations from employing illiterate minors during the time the evening schools are in session unless such minors shall be in constant attendance at the schools. In past years it has been the custom of teachers, or supervisor, to notify overseers when their employes failed to attend school, under the impression, I suppose, that the agent or superintendent of a great mill would not wish to be troubled with such small matters. Acting on the suggestion, however, of one or two superintendents, we have dealt this year directly with the higher official with results much better, I think, than heretofore, and I wish to bear record to the courtesy and kindness with which the school department has always been treated by these officials, and to the painstaking care with which the law has been enforced in all, or nearly all, the corporations with which we have to do.

Summary of Attendance.

For the Term 1895–96.

And the names of the graduates of the High School.

SCHOOLS.	Number of Teachers at Opening of Term.	Number of Teachers at Close of Term.	Whole number on Time Books.			Average number belonging.			Average Attendance.			Per Cent. of Attendance.
			Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	
High	19	19	452	329	781	285	198	483	234	182	416	87
Aiken Ave	8	7	82	50	132	72	48	120	64	42	108	81
Bartlett	17	15	...	302	302	....	268	268	....	217	217	80
Butler	7	5	165	27	192	100	15	115	89	13	102	79
Colburn	13	10	145	55	200	122	25	147	85	25	110	85
Edson	10	8	90	51	141	61	45	106	59	41	100	94
Franklin	11	10	178	109	287	106	71	177	94	63	157	86
Green	24	22	1037	....	1037	427	....	427	393	....	393	92
Mann	23	23	614	202	816	266	84	350	203	83	286	84
Pawtucket	3	3	42	24	66	31	18	49	20	13	33	67
Varnum	8	8	161	106	267	66	61	127	61	47	108	85
High St.	7	6	75	175	250	50	120	170	40	85	125	73
Totals	150	136	3041	1430	3471	1586	953	2539	1342	813	2155	86

GRADUATING CLASS OF '96.

THREE YEARS' COURSE.

Bridget Josephine Torpey.
Agnes Frances Cullinan.
Rose Agatha Scribner.
Nellie Agnes Muldoon.
Annie Elizabeth Kelley.
Mary Etta Maguire.
Annie Frances Raynolds.
Mary Ellen McGovern.
Mary Thornber.
Annie Louise Spellman.
Emma Jane Purcell.
Patrick Francis Gill.
Frank Rawnsley.
James Francis Sullivan.
John Francis Burns.
John Francis Barnes.
Zachary J. B. LeBruin.
Ralph Warner Clogston.
Joseph Francis Kearns.
Peter Francis Keville.
Henry Joseph Murray.
John Henry Burns.
Arthur Burns.
James Thomas Lynch.
Abbe Joseph Lemire.
William Lang Gillespie.
Catherine Anastacia Donohue.

STENOGRAPHY AND TYPEWRITING.

TWO YEARS' COURSE.

Frank Marshal Berry.
Mary Frances Murphy.

CHEMISTRY.

THREE YEARS' COURSE.

William Lucius Churchill.
Laurence Christopher McNamara.

EVENING DRAWING SCHOOL.

Following is the record of attendance at the evening drawing school for the term of 1895–96:

CLASS.	Number of Teachers.	Whole number on Time Book.			Average number belonging.			Average Attendance.			Per cent. of Attendance.
		Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	
Architectural	4	60	3	63	47	3	50	35	3	38	76
Free-hand	4	90	77	167	58	56	114	46	41	87	76
Machine Drawing	5	110	....	110	85	....	85	63	....	63	74
Modeling	4	68	35	103	28	28	56	20	22	42	75
Practical Design	2	8	18	26	7	13	20	6	11	17	85
Totals	19	336	133	469	225	100	325	170	77	247	77

TRUANCY.

The care of the supply department and other duties have so largely withdrawn one of the truant officers from the looking up of truants that this work, together with much delivering of supplies, has fallen almost wholly to the other two, who have thus been kept very busy. They have investigated 1579 cases, and have secured the commitment of 25 to the County Truant School. This school is a model institution, and the only trouble is that too often a boy who is being comfortably kept and well taught there has to be discharged when his term ends, to return to surroundings so bad that a life of ignorance, vice and crime is almost inevitable. Could such remain longer there is no doubt that it would be a great advantage to both boy and public.

During the year two parents have been prosecuted for failing to educate their children, and convictions have been secured in each case, though the fine was remitted in both cases on the promise of the parent to henceforth see that his children attend school. The promise has been well kept in both cases, so that the desired end has been reached, though with less effect, perhaps, on other delinquents than would have been the case had the fines been collected. That convictions can be secured, however, is a fact which it is important to have ascertained and made public, and in future prosecutions the leniency of the past cannot safely be counted upon.

A detailed statement of the work done by the truant commissioners follows this report.

NORMAL SCHOOL.

The building for the Normal School in Lowell is sufficiently advanced to show its noble proportions, but the date for its completion cannot yet be safely predicted. Apparently it may be finished by September, 1897, and the school may be opened at that

time, but the State Board of Education is not yet ready to make any definite announcement concerning it. A considerable number of students in our high school have been taking a course intended to fit them for the school, and it is greatly to be hoped that it will be ready for them, and for others, in September. Should the building lack something of completeness at that time temporary quarters can easily be secured in which to open the school, and the certainty that some such arrangement would be made, if necessary, would be a great relief to those who hope to enter the school in 1897.

In conclusion I wish to thank the teachers of the city, whose faithful labors alone make possible any real success in school work, for cordial co-operation, Mr. John F. Williams for efficient assistance in an almost infinite number of details, and the School Committee for generous confidence and cordial support.

Respectfully submitted,

A. K. WHITCOMB.

REPORT OF THE TRUANT COMMISSIONERS FOR THE YEAR 1896.

1896.	Absentees.	Truants.	Working without certificate.	Wandering about the streets.	New scholars.	Juvenile offenders.	Violating the rules of school.	Total number cases investigated.	Arrested.	Sent to the Middlesex County Truant School.	Placed on Probation.	Visited second time.	Visited third time.	Working certificates issued—(14 to 16 years of age.)	Working certificates approved (14 to 16 years of age.)
January	125	23	0	1	0	0	0	149	2	1	1	3	1	63	...
February	51	15	0	4	1	0	0	71	2	2	0	5	3	30	....
March	122	27	0	3	2	0	1	155	3	2	1	7	3	60	....
April	90	28	0	11	0	0	0	129	1	1	0	12	10	50	8
May	192	53	0	45	8	0	0	298	6	4	2	20	10	70	8
June	130	65	0	15	5	4	0	219	6	5	1	20	10	90	10
July	....	....	....	...	....	....	....	...	....	....	...	....	....	63	....
August	....	....	....	....	....	....	....	....	....	....	....	....	....	37	...
September	72	7	0	0	2	0	0	81	0	0	0	6	2	60	7
October	190	17	0	3	0	0	0	210	2	2	0	12	6	112	17
November	140	23	0	8	2	0	0	173	7	7	0	15	10	135	15
December	83	5	0	2	0	4	0	94	1	1	0	10	7	55	7
Totals	1195	263	0	92	20	8	1	1579	30	25	5	114	62	615	72

Whole number of cases of Contagious Diseases reported by the Board of Health.

Scarlet Fever	33
Diphtheria	29
Measles	36
Mem. Croup	12
Total	110

Report of Committee on Text Books and Supplies.

This committee has seldom contributed to the pages of the annual report, but, considering that this document goes directly into the hands of the parents, who are the most interested in the schools, we have decided to call attention here to a few points of interest. When the free text-book law went into force, this committee became at once one of the most important on the school board. And so it has remained up to the present time. Just what effect the new method of purchasing the city supplies will have upon its standing remains a problem. We doubt the wisdom of any interference with the present arrangement in this department. When it is considered that, with the exception of the items of salaries and coal, practically the entire school appropriation is expended by this committee, the opportunities presented for guarding well the interests of the city are at once apparent. This, the committee during the year just passed, has endeavored earnestly to do. Everything of any importance or amount has been purchased by contract, after competitive bids by responsible parties, and the *little* items have been as carefully guarded. In successfully carry-

ing out this policy, the committee owes an inestimable debt to Truant Commissioner John F. Williams, who, among other duties, has maintained charge of the supply room at City Hall. He has always been found ready, willing and competent to assist the committee in every way, and his familiarity with every detail of school supply has lightened our labors not a little. Were all public officials as faithful to the duties imposed upon them, the problem of municipal government would solve itself.

Last year the item of drawing and writing books, paper, pens and lead pencils was $5,762.25. This has been reduced during the past year about $2,500. This was partly due to the fact that 1895 was the first year of the exclusive use of paper, but partly to careful buying and placing of material. Considering that this item covers the entire expense for nearly 14,000 children, surely nobody will advocate a return to the noisy, filthy slates on a plea of economy. The expenditure for rent of rooms for school purposes during the past year was $2,744, an item which should not occur in the running expenses of our schools, and would not, did a more generous building policy exist in our city council. The necessity of building about so many new school houses every year, to accommodate the increase of attendance, should receive more attention. This committee pays for all janitors' supplies, such as brooms, soap, ash barrels, etc., but has no charge whatever over the janitors themselves.

We pay for all coal for the schools, but a committee entirely apart from the school board buys it. The school board should have entire charge of its affairs and of school property, as in other cities.

While the average cost of instruction per pupil has increased a few cents over last year, we think the two items of increased cost of fuel, and extra rent and janitors' salaries will entirely cover the difference. The school expenses are, we believe, carefully and conscientiously managed.

G. Forrest Martin, Chairman.
Thomas J. Mulligan.
A. Hyde Schoolcraft.
Willard Everett.
Geo. F. Thomas.

Appendix.

ROLL OF TEACHERS.

Giving Name, Grade, Residence, Date of Election, and Salary.

HIGH SCHOOL.

Kirk and Anne Streets.

Frank F. Coburn, Principal, 281 E. Merrimack St., *Science*	1880	$2,500
Frank B. Sherburne, 58 Dover St., *Language* . . .	1883	2,000
Cyrus W. Irish, 19 Mt. Vernon St., *Science*	1885	2,000
Mary A. Webster, 45 Varney St., *Language and Mathematics*	1859	900
Elizabeth McDaniels, 408 E. Merrimack St., *Literature* .	1868	800
Charlotte E. Draper, 47 Belmont Ave., *Language and Science*	1870	800
Alice J. Chase, 263 Fairmount St., *Science and Language* .	1877	800
Susie L. D. Watson, 31½ Dutton St., *Language and Mathematics*	1885	800
Adelaide Baker, 156 Sixth St., *Language*	1885	800
Jennie L. Allen, 947 Middlesex St., *Science*	1885	800
Emma L. Bradley, 485 Westford St., *Language* . . .	1890	800
Gertrude A. Rodliff, South Chelmsford, Mass., *English* .	1890	800
Marietta Cassidy, 4 Fifth Ave., *Language*	1890	800
Georgianna F. Vinton, 52 Fourth St., *English* . . .	1872	800
Grace M. Goodhue, 120 School St., *History and Mathematics*	1893	800
Bessie E. Huntoon, 182 Mt. Vernon St., *Language* . .	1894	800
Grace Ward, 279 Chelmsford St., *Mathematics* . . .	1895	700
Mary E. O'Connor, 91 Tremont St., *English*	1896	650
Carl D. Burtt, 66 Third St., *History*	1895	800
Fred R. Woodward, 11 Simpson St., *Mathematics* . . .	1895	800
George R. Carothers, 466 Fletcher St., *Manual Training* .	1895	1,000

BARTLETT GRAMMAR SCHOOL.

Corner Hancock Avenue and Clark Street.

Cyrus A. Durgin, Master, 78 Varney St.	1892	$1,700
Mary B. Kent, 1st and 2d, 818 Merrimack St.	1859	600
Belle A. Prescott, 3d and 4th, 68 Mt. Washington St.	1878	600
Belle F. Batchelder, 3d and 4th, 66 Arlington St.	1883	600
Amy L. Tucke, 5th and 6th, 111 Butterfield St.	1880	600
Blanche A. Cheney, 5th and 6th, 24 Marginal St.	1896	500
M. Ida Howe, 7th and 8th, 84 Methuen St.	1873	600
Frances M. Talbot, 7th and 8th, 159 Pawtucket St.	1882	600
Elizabeth F. Blandin, 3d and 4th, 61 Durant St.	1886	450

MORRILL SCHOOL.

Common and Adams Streets.

Ellen F. Coughlin, Principal, 3d and 4th, 203 Cross St.	1853	$650
Nellie M. Brown, 1st and 2d, 426 Fletcher St.	1865	600
Annie M. Courtney, 5th, 24 Lagrange St.	1887	600
Charlotte E. Brown, 6th, 426 Fletcher St.	1870	600

SCHOOL STREET SCHOOL.

School Street, between Pawtucket and Bowers Streets.

Eugenia L. Hogan, Principal, 1st, 2d and 3d, 4 Crane's Ave.	1889	$625
Fannie A. Hardy, 4th, 5th and 6th, 22 Third St.	1890	600

CROSS STREET SCHOOL.

Cross Street, between Fletcher and Mt. Vernon Streets.

Sarah E. Scales, Principal, 1st and 2d, 28 Ralph St.	1866	$650
Ellen M. White, 3d and 4th, 54 Hanks St.	1863	600
A. Gertrude Stiles, 5th, 72 Varney St.	1895	500
Katherine Kelly, 6th, 77 Mt. Washington St.	1893	600

BUTLER GRAMMAR SCHOOL.

Gorham Street.

Cornelius F. Callahan, Master, 152 Fenwick St.	1884	$2,000
Nellie F. Murphy, 1st and 2d, 85 Sherman St.	1878	600
Margaret T. McCarthy, 1st and 2d, 647 Market St.	1890	600
Mary I. Donlan, 3d and 4th, 455 High St.	1890	600

Anastasia C. Corbett, 3d and 4th, 32 Highland St.	1878	$600
Mary E. Lane, 5th and 6th, Billerica	1894	600
Delia T. Brady, 5th and 6th, 183 Chapel St.	1883	600
Kate E. Kelley, 7th and 8th, 129 Moore St.	1883	600
Agnes M. Foley, 7th and 8th, 37 Newhall St.	1887	600
Mary L. McSorley, 9th and 10th, 30 Ash St.	1879	600
Jennie S. Noble, 9th and 10th, 4 Carter Place	1894	600
Katherine L. Walsh, 11th and 12th, 5 Watson St.	1895	500
Katherine M. Usher, 9th, 10th, 11th and 12th, cor. Parker and Walden Sts.	1895	500
Grace G. Marren, 66 Linden St.	1896	450

LYON STREET SCHOOL.

Corner of Lyon and Central Streets.

Alice T. Lee, Principal, 1st and 2nd, 12 South Walker St.	1878	$650
Annabel Costello, 3d and 4th, 203 Nesmith St.	1888	600
Mary J. McCarry, 4th and 5th, 21 Mead St.	1881	600
Nellie A. Hunt, 6th, 68 Elm St.	1884	600

CARTER STREET SCHOOL.

Carter Street.

Isabelle T. Vinall, Principal, 1st and 2d, 11 Simpson Place	1873	$650
Margaret J. Connors, 3d and 4th, 10 Pollard St.	1894	600
Cornelia M. Davis, 5th and 6th, 66 Kirk St.	1871	600

AGAWAM STREET SCHOOL.

Corner of Agawam and Barrington Streets.

Mary A. Fay, Principal, 1st and 2d, 115 Stackpole St.	1889	$625
Susan G. Neilon, 3d and 4th, 135 Andrews St.	1895	500
Rose Donnelly, 5th and 6th, 15 Hudson St.	1896	450

LONDON STREET SCHOOL.

Corner of London and West Streets.

Lizzie R. Maguire, Principal, 1st, 2d and 3d, 112 Pleasant St.	1884	$650
Alice A. Masterson, 4th, 5th and 6th, 13 Harrison St.	1892	600
Minnie F. Hill, 4th, 5th and 6th, 203 Thorndike St.	1887	600

WEED STREET SCHOOL.

Corner of Weed and Gorham Streets.

Mary B. McGovern, Principal, 1st and 2d, 31 Pearl St.	1886	$650
Lilla M. McEvoy, 3d and 4th, 181 Moore St.	1893	600
Mary J. Carmichael, 5th and 6th, Ellsworth St.	1893	600

LOWELL TRAINING SCHOOL.

(*Telephone 531-3.*)

Charles and Lawrence Streets.

Gertrude Edmund, Principal, 74 Huntington St.	1895	$1,900
Mabel W. Ewings, First Assistant, 127 Stackpole St.	1891	900
Addie B. Merrill, 981 Bridge St.	1892	800
Helen M. Shean, 84 South Whipple St.	1891	600
Adelaide A. Jackson, 249 Branch St.	1896	800

CENTRAL STREET SCHOOL.

Central Street, opposite Hudson Street.

Eliza Cowley, Principal, 1st and 2d, 420 Lawrence St.	1857	$650
Charlotte McDaniels, 3d and 4th, 408 East Merrimack St.	1878	600
Kate J. Lawler, 4th and 5th, 260 High St.	1885	600
Lilla J. Greenhalge, 6th, 123 Nesmith St.	1871	600

AMES STREET SCHOOL.

Corner of Lawrence and Ames Streets.

Amanda M. Hadley, Principal, 1st, 89 Washington St.	1870	$650
Kate F. Murphy, 2d, 3d and 4th, 1 Carter Place	1885	600
Mary E. Drew, 5th and 6th, 36 Wamesit St.	1868	600
Lizzie M. Hadley, 6th, 72 Grand St.	1869	600

EDSON GRAMMAR SCHOOL.

Highland Street.

C. W. Burbank, Master, 130 Bowers St.	1872	$2,000
Frances M. Webster, 1st and 2d, 45 Varney St.	1873	600
Rosalie T. Burns, 3d and 4th, Rogers St.	1878	600
Annie E. Donovan, 5th and 6th, 26 Madison St.	1895	500

Mary F. Ward, 5th and 6th, 220 Fletcher St.	1893	$600
Kate J. Hayes, 7th and 8th, 15 Floyd St.	1879	600
Margie F. Marren, 8th and 9th, 420 Fletcher St.	1886	600
Sarah J. Crosby, 10th, 339 Gorham St.	1868	600
Bertha M. Rowlandson, 10th, cor. Holyrood Ave. and Hovey St.	1891	600
Mary A. Balch, 12th, 242 Appleton St.	1865	600
Elizabeth G. Morgan, 12th, 28 C St.	1895	500
Annie E. Donovan, 5th and 6th, 26 Madison St.	1895	500

CHARLES STREET SCHOOL.

Charles Street, between Gorham and Chapel Streets.

Alice T. Owens, Principal, 1st and 2d, 4 Belmont St.	1878	$650
Ella E. Gardner, 3d, 109 Mansur St.	1871	600
Annie E. Slavin, 4th and 5th, 259 South St.	1887	600
Ellen A. O'Connell, 5th and 6th, 9 Mead St.	1896	450

CHAPEL STREET SCHOOL.

Chapel Street, opposite Pollard Street.

Katie E. McOwen, Principal, 1st, 2d and 3d, 36 Linden St.	1882	$625
Lizzie A. Molloy, 4th, 5th and 6th, 253 High St.	1887	600

COTTAGE STREET SCHOOL.

Corner Cottage and Chapel Streets.

Rose E. McVey, Principal, 1st, 2d and 3d, 46 Linden St.	1887	$625
Maggie A. Harrahan, 4th, 5th and 6th, 32 Marshall St.	1882	600

ELIOT SCHOOL.

Corner Favor and Summer Streets.

Ellen A. Stillings, Principal, 4th and 5th, 24 Bellevue St.	1875	$650
Ellen A. Corbett, 1st and 2d, 32 Highland St.	1878	600
Nellie T. O'Grady, 3d, 73 Newhall St.	1881	600
Loyola McCann, 6th, 64 Tyler St.	1893	600

GREEN GRAMMAR SCHOOL.

Merrimack Street.

A. L. Bacheller, Master, 43 Arlington St.	1874	$2,000
Ruth B. Bailey, 1st and 2d, 514 Moody St.	1871	600

Clara A. Hanaford, 3d and 4th, 1 Spaulding St.	1869	$600
Lizzie A. Nolan, 5th and 6th, 301 Pawtucket St.	1876	600
Carrie A. Miles, 7th and 8th, 318 Central St.	1882	600
Lena A. Gookin, 9th and 10th, 20 Walden St.	1880	600
Kate F. McCarthy, 9th and 10th, 647 Market St.	1889	600
Ella J. Carleton, 11th and 12th, 1072 Bridge St.	1882	600
Jennie E. Fay, 11th and 12th, 115 Stackpole St.	1891	600
Mary M. Kearney, 94 Andrews St.	1895	500

KIRK STREET SCHOOL.

Corner of Kirk and Lee Streets.

Eliza A. Davis, Principal, 1st, 2d and 3d, 66 Kirk St.	1881	$625
Laura H. Palmer, 4th, 5th and 6th, 639 Bridge St.	1882	600

CABOT STREET SCHOOL.

Corner Cabot and Ford Streets.

Nellie T. Gilday, Principal, 5th and 6th, 32 Varney St.	1886	$650
Martha A. Neal, 5th and 6th, 23 Dodge St.	1847	600
Mary J. Murphy, 3d and 4th, 112 Jefferson St.	1887	600
Katharine T. Lennon, 1st and 2d, 144 School St.	1885	600

CHEEVER STREET SCHOOL.

Cheever Street.

Ida J. Clarke, Principal, 3d and 4th, 356 E. Merrimack St.	1887	$650
Mary E. Meehan, 1st and 2d, 215 Worthen St.	1891	600
Anna A. Sargent, 5th and 6th, 135 Liberty St.	1864	600

WORTHEN STREET SCHOOL.

Worthen Street, between Market Street and Broadway.

Mary L. Hill, Principal, 1st and 2d, 228 Worthen St.	1858	$650
Esther V. Green, 3d and 4th, 188 Cross St.	1889	600
Mary J. Alger, 5th and 6th, 115 Branch St.	1868	600
Mary R. Marren, 5th and 6th, 420 Fletcher St.	1890	600

HIGHLAND GRAMMAR SCHOOL.

(*Telephone 366-5.*)

Pine Street.

Charles W. Morey, Master, 14 Belmont St.	1880	$2,000
Flora I. Moffitt, 1st and 2d, 386 Westford St.	1887	600

Mary F. Foss, 1st and 2d, 215 Stevens St.	1891	$600
Abbie F. Woodward, 3d and 4th, 165 Branch St.	1869	600
Estelle L. Whitney, 3d and 4th, 139 Chapel St.	1885	600
Leonora K. Battles, 5th and 6th, 147 Howard St.	1895	500
Nellie A. Coburn, 5th and 6th, 62 South Walker St.	1886	600
Luella A. Wardwell, 7th and 8th, 33 Dover St.	1870	600
Minnie C Gray, 7th and 8th, 106 Liberty St.	1890	600
Fannie M. Clark, 9th and 10th, 33 Dover St.	1874	600
Edith L. Monroe, 9th and 10th, 48 Warwick St.	1885	600
Harriet B. Frye, 11th and 12th, 359 Walker St.	1882	600
Carrie M. Sprague, 11th and 12th, 147 Howard St.	1890	600

HIGHLAND ANNEX, AT FRANKLIN SCHOOL-HOUSE.

Arvilla L. Reader, 11th and 12th, 216 Appleton St.	1871	600
Grace F. Ward, 9th and 10th, 6 Appleton Place	1893	600
Annie E. King, 7th and 8th, 223 Stackpole St.	1895	500

FRANKLIN SCHOOL.

Corner Branch and Middlesex Streets.

Sarah C. Fiske, Principal, 1st and 2d, 246 Appleton St.	1866	$650
Lizzie S. Lowe, 3d and 4th, 13 Nichols St.	1857	600
Marion J. Stevenson, 4th and 5th, 63 Princeton St.	1878	600
Kate G. Jones, 6th, 119 Andover St.	1880	600

PLAIN STREET SCHOOL.

Corner Plain and Powell Streets.

Laura E. Lee, Principal, 4th, 5th and 6th, 189 Grand St.	1873	$650
Flora H. Sprague, 1st, 2d and 3d, 589 School St.	1882	600
Mary A. Farnham, 1st, 2d and 3d, 90 Gates St.	1887	600
Gertrude Allen, 5th and 6th, 35 Hampshire St.	1894	600

DOVER STREET SCHOOL.

Dover Street, between Middlesex and Grove Streets.

Clara B. Horne, Prin., 1st and 2d, 87 South Highland St.	1877	$650
Clementine H. Bowers, 3d and 4th, 18 Loring St.	1876	600
Bertha Gardner, 3d and 4th, 32 Robbins St.	1887	600
Lillian L. Sproat, 6th, 57 Clare St.	1895	500

MIDDLESEX VILLAGE SCHOOL.

Hattie F. Wakefield, Principal, 2 Loring St.	1889	$625
Martha Rogers, 131 Cumberland Road	1895	500

POWELL STREET SCHOOL.

Powell Street, near Liberty Street.

Viola A. Hamblett, Prin., 4th, 5th and 6th, 463 School St.	1876	$625
Carrie J. Bailey, 1st, 2d and 3d, 16 Loring St.	1884	600

ABRAHAM LINCOLN GRAMMAR SCHOOL.

Chelmsford Street.

James L. Mellen, Master, 233 Fayette St.	1895	$1,500
Margaret M. Sparks, 1st and 2d, 90 South Whipple St.	1894	600
Grace Scribner, 3d and 4th, 190 Liberty St.	1893	600
Mary A. Gorman, 7th and 8th, 76 Charles St.	1895	500
Anna A. Burnham, 8th and 9th, 11 Puffer St.	1894	600
Ellen L. Floyd, 9th, 10th and 11th, 124 Stevens St.	1887	600
Ella E. Prescott, 11th and 12th, 36 Liberty St.	1894	600

HOWARD STREET SCHOOL.

Howard Street, between Chelmsford and Hale Streets.

Marion E. Greene, Principal, 1st and 2d, 143 Howard St.	1884	$650
Alice C. Greene, 3d and 4th, 143 Howard St.	1894	600

GRAND STREET SCHOOL.

(Howard Street Annex.)

Grand Street, between Westford and Middlesex Streets.

Jennie M. Bennett, 5th, 94 Dover St.	1885	$600
Minnie A. Willson, 6th, 28 Cambridge St.	1887	600

MOODY GRAMMAR SCHOOL.

Corner of High and Rogers Streets.

William S. Greene, Master, 263 Westford St.	1883	$2,000
Mercena F. Whitehorn, 1st and 2d, 519 Beacon St.	1877	600

Carrie A. Paul, 3d and 4th, 237 East Merrimack St.	1891	$600
Carrie E. Erskine, 5th and 6th, 138 Mt. Vernon St.	1893	600
Elizabeth W. Frost, 7th and 8th, 237 E. Merrimack St.	1857	600
Ella M. Breen, 7th and 8th, 23 Marsh St.	1893	600
Frances E. Garity, 9th and 10th, 34 Read St.	1874	600
Maud A. Jones, 11th and 12th, 259 Gorham St.	1893	600
Frances E. Hardman, 11th and 12th, 263 Fairmount St.	1873	600

POND STREET SCHOOL.

Corner of High and Pond Streets.

Marietta Hill, Principal, 1st and 2d, 305 E. Merrimack St.	1870	$650
Winnifred Haggerty, 3d and 4th, 52 Huntington St.	1884	600
Adelaide Crowley, 5th and 6th, 115 Fort Hill Ave.	1894	600

HIGH STREET SCHOOL.

High Street, between Chestnut and Everett Streets.

Clara A. Emerson, Prin., 1st, 2d and 3d, 216 Appleton St.	1869	$625
Elizabeth Worthley, 4th, 5th and 6th, 27 Canada St.	1891	600

FAYETTE STREET SCHOOL.

Fayette Street, between Chestnut and Everett Streets.

Georgia A. Harnden, Prin., 1st, 2d and 3d, 149 Pleasant St.	1885	$625
Mary A. Meehan, 4th, 5th and 6th, 100 Bourne St.	1895	500

SYCAMORE STREET SCHOOL.

Sycamore Street.

Jeanette T. Costello, 1st, 2d and 3d, 293 Nesmith St.	1893	$625

PAWTUCKET GRAMMAR SCHOOL.

Mammoth Road, Pawtucketville.

William P. Barry, Master, 1280 Middlesex St.	1887	$2,000
Nellie Macdonald, 1st, 2d. 3d and 4th, 120 School St.	1878	600
Carrie M. Hart, 5th and 6th, 16 Varney St.	1887	600
Lizzie A. Hart, 7th and 8th, 16 Varney St.	1886	600
Julia M. Healey, 9th and 10th, 108 Bowers St.	1870	600
Effie I. Marshall, 11th and 12th, 28 Riverside St.	1887	600

MAMMOTH ROAD SCHOOL.

Pawtucket School Building.

Ellen M. Holden, Principal, 1st and 2d, 21 Eighth Ave.	1876	$650
Nellie F. Davidson, 3d, 4th and 5th, 20 Lombard St.	1891	600
Alice B. Besse, 5th and 6th, 581 Rogers St.	1891	600

VARNUM AVENUE SCHOOL.

Varnum Avenue.

Helen Kohawn, ungraded, 63 Thirteenth St.	1877	$625

VARNUM GRAMMAR SCHOOL.

Myrtle Street, Centralville.

Henry H. Harris, Master, 26 Massachusetts Corporation	1895	$1,500
Elizabeth C. Kennedy, 1st and 2d, 42 Eighteenth St.	1884	600
Mary F. Wing, 3d and 4th, 99 Third St.	1879	600
Maria W. Roberts, 5th and 6th, 89 Christian St.	1875	600
Harriet Bradley, 6th and 7th, 62 Fourth St.	1854	600
Sarah A. Bradley, 7th, 555 Bridge St.	1857	600
Grace W. Balch, 8th, 434 Westford St.	1894	600
Alice R. Keese, 9th, 4 Sanborn St.	1881	600
Ada E. Hoole, 10th, 173 Warren St.	1894	600
Rose A. Dowd, 11th, 237 Tenth St.	1884	600
Julia Williams, 12th, 640 Bridge St.	1886	600
Elizabeth F. Garra, 11th and 12th, 109 Bartlett St.	1893	600
Agnes T. Fay, 9th and 10th, Tenth St.	1891	600

WEST SIXTH STREET SCHOOL.

West Sixth Street, between Coburn and Jewett Streets, Centralville.

Stella J. Allen, Principal, 1st and 2d, 115 Third St.	1879	$650
Lizzie F. Lamere, 2d and 3d, 829 Bridge St.	1885	600
Marion S. Keyes, 4th and 5th, 102 Third St.	1888	600
Mary J. Callahan, 5th and 6th, 117 Durant St.	1895	500

TENTH STREET SCHOOL.

Corner Tenth and Varnum Streets, Centralville.

Mary F. Beane, Principal, 1st, 212 Tenth St.	1879	$650
Fannie H. Murphy, 2d and 3d, 42 Twelfth St.	1889	600

Alice A. Holtham, 4th and 5th, 1107 Bridge St.	1887	$600
Ella A. Bailey, 6th, 3 Myrtle St.	1869	600

LAKEVIEW AVENUE SCHOOL.

Lakeview Avenue, Centralville.

Marietta F. Crowley, Principal, 1st and 2d, 33 Marion St.	1879	$650
Agnes T. Courtney, 3d and 4th, 11 Marsh St.	1891	600
Margaret J. McCluskey, 5th, 161 Lakeview Ave.	1890	600
Lillian C. Wholey, 6th, 359 Stevens St.	1894	600

BILLINGS STREET SCHOOL.

Malvina Lamere, Principal, 290 Bridge St.	1894	$625
Annie M. Robbins, 3d and 4th, 62 Twelfth St.	1895	500

CENTRALVILLE KINDERGARTEN.

Parker Block, Bridge Street.

Nettie M. Conant, Principal, 21 Osgood St.	1892	$500
Clara M. Everett, 945 Middlesex St.	1896	350

HIGHLAND KINDERGARTEN.

Elizabeth A. Wilson, 77 Dover St.	1893	$500

MOODY SCHOOL KINDERGARTEN. NO. 1.

Mary C. Walker, Principal, 100 Appleton St.	1893	$500
Ella L. Pratt, Assistant, Reading, Mass.	1893	450

MOODY KINDERGARTEN. NO. 2.

Louie I. Smith, Principal, 69 Nichols St.	1895	$500

TRAINING SCHOOL KINDERGARTEN.

Mabel D. Nickerson, Principal, 33 Nesmith St.	1893	$500
Clare S. Reed, 11 Nesmith St.	1896	350

MT. VERNON STREET KINDERGARTEN.

E. Belle Perham, Principal, 100 Riverside St.	1893	$500
S. Hortense Tabor, 82 Riverside St.	1896	350

AGAWAM STREET KINDERGARTEN.

Sarah G. Sparks, Principal, 59 Elm St.	1894	$500

CHAPEL STREET KINDERGARTEN.

Marietta G. Gormley, Principal, 22 Lyon St.	1895	$500
Katharine C. Earley, 172 Concord St.	1896	350

FRANKLIN KINDERGARTEN.

N. Grace Taylor, Principal, 118 Bartlett St.	1895	$500
Helen W. Noyes, 49 Nesmith St.	1896	350

PAWTUCKETVILLE KINDERGARTEN.

M. Etta King, Principal, 223 Stackpole St.	1895	$500
Grace B. Alvord, 113 Varnum Ave.	1896	350

LINCOLN SCHOOL KINDERGARTEN.

Ellen J. Piper, Principal, 35 Canada St.	1894	$500
Elsie Cragin, Assistant, 114 South Walker St.	1895	450

DUTTON STREET KINDERGARTEN.

Mary A. Cronin, Principal, cor. Fletcher and Cross Sts.	1894	$500
Rosemary Lennon, Assistant, 39 Carter St.	1895	450

SUPERVISOR OF KINDERGARTENS.

Anna W. Devereaux, 305 Summer St.	1893	$1,400

TEACHERS OF PENMANSHIP.

Thomas M. Graves, 114 Beech St.	1883	$1,250
John J. Hunt, 172 Pleasant St.	1894	900

MUSICAL DIRECTOR.

F. R. Rix, 28 Central St.	1896	$1,200

TEACHER OF DRAWING.

Olive E. Underhill, 117 Branch St.	1887	$1,250

TEACHER OF SEWING.

Ida J. Flint, 200 Liberty St.	1880	$800

MILITARY INSTRUCTOR.

Alexander Greig, Jr., 52 Cambridge St.	1891	$250

TEACHER OF PHYSICAL CULTURE AND ELOCUTION.

Emma M. Huntley, 249 Branch St.	1894	$500

TRAINING SCHOOL GRADUATES.

CLASS OF JUNE, 1893.

Mary V. Johnson, Primary, 101-1 Prince Street.
Mary T. Whelley, Primary, 68 Fenwick Street.
Elizabeth G. Lawler, Primary, 104 High Street.

CLASS OF JANUARY, 1894.

Annie R. Chase, Grammar, 19 Robinson Street.
Helen A. Drury, Primary, 26 Union Street.
Helen M. Osgood, Primary, 201 School Street.

CLASS OF JUNE, 1894.

Irma V. Hodgman, Grammar, 560 Westford Street.
Edith M. Abbott, Primary, corner Plain and Fruit Streets.
Lilla M. Stanley, Primary, 1 Horn Street.
Blanche F. Edwards, Primary, 178 London Street.
Katherine F. Brady, Primary, 129 Chapel Street.

CLASS OF JANUARY, 1895.

Esther G. Donlon, Grammar, 522 Gorham Street.
Julia B. Riordan, Grammar, 58 Second Avenue.
Grace I. Washburn, Primary, 84 West Sixth Street.

CLASS OF JUNE, 1895.

Helen E. Gookin, Grammar, 300 Concord Street.
Mary E. Walsh, Grammar and Primary, 3 Corner Street.
Sadie E. Tully, Primary and Grammar, 105 Westford Street.
Therese F. Donoghue, Primary, 22 Royal Street.

CLASS OF JANUARY, 1896.

Grace R. Sanders, Grammar, 67 South Loring Street.
Alice C. O'Brien, Grammar, 184 South Street.
Ida L. Samuels, Grammar, cor. Fifth Ave. and Robert Street.
Goldie M. Gardner, Grammar, 56 Willie Street.
Alice M. Magoon, Primary, 64 Oak St.
Mary A. Fay, Grammar, Tenth Street.
Gertrude C. Ring, Primary, 56 Oak St.
Nellie C. Mahoney, Grammar, 17 North Street.

CLASS OF JUNE, 1896.

Emily S. Abbott, Primary, 95 Boston Road.
Gertrude L. Sponholtz, Primary and Grammar, 16 Marsh Street.
Lena May Robinson, Primary and Grammar, 68 S. Walker St.
Lura E. Aldrich, Primary, 27 Vernon Street.

SALARIES OF TEACHERS.

HIGH SCHOOL.

Principal	$2,500 00
Men Assistants	2,000 00
First Woman Assistant	900 00
Other Women Assistants, first year	650 00
Assistants, second year	700 00
Assistants, third year	800 00

GRAMMAR SCHOOLS.

Principals (men)	$1,300 00 to $2,000 00
Assistants, first year	450 00
Assistants, second year	500 00
Assistants, third year and after	600 00
Teacher of Penmanship	1,250 00
Teacher of Drawing	1,250 00
Teacher of Music	1,200 00

PRIMARY SCHOOLS.

Teachers, first year	$450 00
Teachers, second year	500 00
Teachers, third year and after	600 00
Principals of two rooms, extra	25 00
Principals of three or more rooms, extra	50 00

TRAINING SCHOOL.

Principal	$1,900 00
First Assistant	900 00
Other Assistants	800 00

KINDERGARTENS.

Principals	$500 00
Assistants, first year	350 00
Assistant, after first year	450 00

TEMPORARY TEACHERS.

Men teachers, for every school-day's service	$3 00
Women teachers in High School, for every school-day's service	1 75
Women teachers in other schools, for every school-day's service	1 25
Graduates of Training School, after three months' service	2 25

EVENING SCHOOLS.

Principal, High School, per evening	$5 00
Principals, Elementary Schools, per evening	2 00
Assistants, High School, per evening	2 00
Women Assistants, Elementary Schools, per evening	1 25

TEXT-BOOKS USED IN THE PUBLIC SCHOOLS.

PRIMARY SCHOOLS.

First Reader, New Franklin Series.
Second Reader, New Franklin Series.
Advanced 2d Reader, New Franklin Series.
Franklin Primary Arithmetic.
Monroe's Reading Chart.
American Music Reader.
American Music Chart.
Blaisdell's Child's Book of Health.
Barnes' Writing Books.

GRAMMAR SCHOOL.

Third Reader, New Franklin Series.
Fourth Reader, New Franklin Series.
Intermediate Reader, New Franklin Series.
Fifth Reader, New Franklin Series.
Scudder's Fables and Folk Stories.
De Foe's Robinson Crusoe.
Burrough's Birds and Bees.
Hawthorne's Wonder Book.
American Literature, Masterpieces.
Bradbury's Eaton's Practical Arithmetic.
Tarbell's Lessons in English.
Southworth and Goddard's Grammar.
Butler's Elementary Geography.
Butler's Grammar School Geography.
Frye's Primary Geography.
Frye's Common School Geography.
Goodrich's Child's Book of History.
Scudder's History and Short History of the United States.
Fiske's History of the United States.
Thomas's History of the United States.
Union Series of Physiologies.
Wentworth's Elementary Algebra.
Worcester's New Pronouncing Speller.
Worcester's Comprehensive Dictionary.
Thomson's Intellectual Arithmetic.
Spencerian Writing Books.
American Music Readers.
Meservey's Book-keeping.

HIGH SCHOOL.

Latin Grammar, Allen and Greenough.
Cæsar, Allen and Greenough.
Cicero, Allen and Greenough.
Ovid, Allen and Greenough.
Virgil, Allen and Greenough.
Virgil, Brice.
First Latin Book, Collar and Daniell.
Gate to Cæsar, Collar.
Latin Composition, Part I, Daniell.
Latin Composition, Part II, Daniell.
Latin Composition, Collar.
Latin Lexicon, White.
Latin for Sight Reading, Tomlinson.
Greek Grammar, Goodwin.
Greek Reader, Goodwin.
Greek Lessons, White.
Homer, Iliad, Seymour.
Greek Lexicon, Liddell and Scott.
Greek Composition, Woodruff.
Otto's French Grammar, Bocher.
Methode Berlitz, Part I.
Methode Berlitz, Part II.
French Reader, Super.
Easy French Readings, Fisher.
College Plays, Bocher.
French Composition, Grandgent.
French Dictionary, Heath.
Second French Course, Chardenal.
Readings from French History, Super.
La Belle Nivernaise, Daudet.
La Famille de Germandre, Sand.
Bug-Jargal, Hugo.
Les Precieuses' Ridicules, Moliere.
La Voyage de Monsieur Perrichon, Labiche Martin.
LaFountain's Fables, Mme. Beck's edition.
Jeanne d'Arc, Lamartine.
French Lyrics, Bowen.
Le Cure d'Tours, Balzac.
Pecheur d'Islande, Lati.
Eysenbach's German Lesson, Collar.
German Dictionary, Elwell.
German Grammar, Otto.
Die Schonsten Deutschen Lieder, Wenckebach.
Burke's Speeches, Delby.
Lessons in English, Buehler.
Principles of Rhetoric, Hill.
Lessons in English, Lockwood.
English Grammar, Meiklejohn.
Manual of English Literature, Arnold.
Hand-Book of English Literature, Underwood.
Selected American Poems, Scudder.
Selected Ballads and Lyrics, Lodge.
Exercises in English, Strong.
Tales from Shakespeare, Lamb.
Scott's Lady of the Lake, Tufts.
Scott's Marmion, Dalgleish.
Eliot's Silas Marner, Norris.
Story of the Odyssey, Church.
Sketch Book, Irving.
Twice Told Tales, Hawthorne.
Ivanhoe, Scott.
Kenilworth, Scott.
Woodstock, Scott.
Talisman, Scott.
De Foe's History of the Plague, Carpenter.
Irving's Tales of a Traveler, Carpenter.
First Bunker Hill Oration, Webster.
Shakespeare's Plays, Hudson.
Select Essays of Macauley, Charlmers.
Milton Lyrics, Hodgkins.
Immensee, Stoven.
Tales of a Wayside Inn, Longfellow.
Thanatopsis, Bryant.
Book-keeping, Meservey.
Outlines of History, Swinton.
History of Rome, Allen.
History of Greece, Pennell.
English History, Montgomery.
Civil Government, Martin.
Manual of the Constitution, Andrews.
Arithmetic, Wentworth-Hill.
Academic Algebra, Wells.
Higher Algebra, Wells.
Geometry, Plane and Solid, Wentworth.
Surveying, Davies.
Trigonometry, Bradbury.
Physics by Experiment, Shaw.
Dehoae Physics, Avery.
A Text-Book of Physics, Hall-Bergen.
Elements of Chemistry, Avery.
Qualitative Analysis, Hill.
Astronomy, Sharpless-Philip.
Geology, Le Conte.
Botany, Gray.
Herbarium, Wilson.
Physiology, Kellogg.
Physical Geography, Hinman.

Courses of Study.

TIME TABLE.

In minutes, per week,

FOR THE

PRIMARY AND GRAMMAR SCHOOLS.

	1st Year.	2d Year.	3d Year.	4th Year.	5th Year.	6th Year.	7th Year.	8th Year.	9th Year.
Reading	700	610	570	300	220	180	160	150	150
Arithmetic	150	210	240	250	280	280	280	280	270
Grammar	....	....	....	....	....	120	130	150	200
Comp. and Lang	75	75	75	150	150	100	100	100	100
Geography	30	30	40	180	180	180	170	150	150
History	....	....	....	40	60	60	140	150	150
Spelling	60	90	90	100	100	100	100	100	90
Writing	60	60	60	60	60	60	60	60	60
Drawing	60	60	60	60	60	60	60	60	60
Music	60	60	60	60	60	60	60	60	60
Nature Study	30	30	30	60	60	30	30	30	30
Physiology	25	25	25	....	30	30	30	30	....
Sewing	....	....	....	60	60	60	....	....	....
*Manners, Morals	25	25	25	25	25	25	25	25	25
Physical Culture	....	....	....	30	30	30	30	30	30
‡Recesses	200	200	200	100	100	100	100	100	100
†Opening Exercises	25	25	25	25	25	25	25	25	25
Totals	1500	1500	1500	1500	1500	1500	1500	1500	1500

*Required by State Law; time fixed at five minutes each day by vote of the School Committee.

†See Sec. 22, Chap. III, of the Rules of the School Committee.

‡See Sec. 23, Chap. III, of the Rules. If for any reason a recess is shortened or omitted the time for the same should be given to physical exercises, and the hours for closing schools prescribed by the School Committee should not be changed.

Book-keeping may receive one-half the time assigned to penmanship in the ninth year, and algebra should have all the time allotted to geography in the last half of the ninth year.

The above table is intended as an approximate estimate of the relative importance of the different studies, and teachers are at liberty to vary the time for each study within such reasonable limits as circumstances may require.

FIRST YEAR.

FIRST HALF.

READING.—Teach by the sentence and word method, beginning with script letters on the blackboard, and later using the Monroe Charts and the first lessons in the First Reader. Employ phonic analysis to secure distinct articulation and assist in the recognition of new words. Secure naturalness of expression by making sure that no sentence is spoken until the thought is fully comprehended. Consult Miss Spear's "Preparing to Read," Calkin's "From Blackboard to Books," and Miss Badlam's "Suggestive Lessons in Language and Reading."

WRITING.—Words and letters from blackboard copy.

SPELLING.—Words of the reading lessons copied from the blackboard. After the letters of the alphabet are known, spelling from dictation may be begun, at the option of the teacher.

LANGUAGE.—Object: (1) To secure the confidence of the children and make them feel at home in school; (2) to increase their vocabulary; and (3) to accustom them to express their thoughts in simple and correct forms of speech.

Lead the children to talk freely about things with which they are familiar, and to reproduce short stories told them by the teacher. Require complete statements, correct forms of speech, and distinct articulation, using great care, however, that corrections are not made in a way to repel confidence or lessen interest. The importance of making children enjoy the first weeks of school life cannot be over-estimated. Memory gems, brief maxims, and short selections of poetry, learned and recited in this and all succeeding grades.

ARITHMETIC.—Numbers from one to five, inclusive. Add, multiply, subtract, and divide, developing all processes by the aid of objects. Consult Wentworth and Reed's "First Steps in Num-

ber," Baldwin's "Industrial Arithmetic," and Prince's "Arithmetic by Grades" in this and succeeding grades.

Geography.—Conversation lessons, preparatory to regular work in geography. Teach position, as above, below, on, under, front, back, etc., and right and left as relative terms. Lead children to observe the temperature as warm, hot, or cold, and the weather as sunny, cloudy, or rainy. Consult Nichols' "Topics in Geography," Grade I.

Nature Study.—Lessons to recognize and name a few common plants, animals and minerals, and to note single qualities of each. Teach only from observation and experiment. The object of nature study in primary grades is not so much the acquisition of facts as the training of the powers of observation and the development of an active interest in natural objects. Consult Prince's "Courses and Methods."

Physiology.—Oral lessons, teaching the names and uses of the external parts of the body, and the simplest rules of health. Consult Prince's "Courses and Methods," pages 173 and 195. The order of topics prepared by Dr. Dunton of the Boston Normal School, and printed on page 196 of the above mentioned book, may profitably be followed in this and all succeeding grades. Teach the effect of the use of alcoholic stimulents and narcotics as required by the laws of the State.

Manners and Morals.—As required by the Public Statutes of the Commonwealth and printed on page 30 of the Rules of the School Committee, in this and all succeeding grades. Mrs. Dewey's "How to teach Manners," or Miss Wiggin's "Lessons on Manners," may serve as a manual.

Music and Drawing.—Throughout the course as directed by the special teacher of each of those branches.

SECOND HALF.

READING.—Franklin First Reader and supplementary readers. Continue phonics, and teach the long and short sounds of the vowels. See that every phrase is spoken as a whole. In this, as in all grades, the aim is to secure a full comprehension of the thought, natural expression, distinct articulation, correct pronunciation, and ready utterance.

If the last part of the First Reader proves too difficult for the first year, leave a part to be finished the second year.

WRITING.—Words and sentences from the blackboard, chart, and slips prepared for the purpose on the paper specially ruled for primary work. If all the letters of the alphabet have not been learned by the pupil by the end of the year, unconsciously, give a little special instruction to accomplish this object.

SPELLING.—Words of the reading lesson copied from the blackboard, and afterwards spelled, orally or in writing, from dictation. Teach children to spell their own names, and the names of places or objects in which they are interested.

LANGUAGE.—Objects: to increase the pupils' stock of ideas and words, and to facilitate the expressions of thought in correct forms of speech.

Conversational lessons as in the first half, carefully correcting all errors of expression. In this respect every lesson in this and all succeeding grades should be a language lesson. Begin writing short sentences, and teach the capital at the beginning of the sentence, the capital I, and the period and interrogation-mark.

ARITHMETIC.—Numbers, oral and written, to ten, inclusive. Use objects, but discard them gradually as facts are learned, and give much drill in applied and abstract work. Arabic and Roman natation to ten (and further, so as to enable pupil to tell page, lesson and paragraph in the reading book, at the option of the

teacher), and the signs $+$, $-$, $\times$, $\div$, $=$. Teach, objectively, the fractions $\frac{1}{2}$, $\frac{1}{4}$; coins from one cent to ten cents; pint, quart, inch.

GEOGRAPHY.—Teach cardinal points with practical application to objects in the school room, the school yard, and streets near the school house. Have children draw plans of desks, and locate objects on them, and use an outline of the school room drawn upon the blackboard by the teacher for the same purpose.

Give easy conversation lessons at appropriate times on natural objects and phenomena, as sun, clouds, rain, snow, etc.

NATURE STUDY.—Lessons as in the first half. Teach only the most general and obvious features, and assist pupils to find out all facts for themselves as far as possible. Whenever practicable, provide specimens for all the pupils. Encourage the children to make collections.

PHYSIOLOGY.—As in the first half. In connection with the names and uses, teach the proper care of the hair, teeth, nails, etc. Do not try to teach too much; only general facts which are mainly within the range of the pupils' observatiou are wanted. Show importance of cleanliness, exercise, proper clothing, good food, pure air, etc., in this and succeeding grades.

SECOND YEAR.

FIRST HALF.

READING.—The first half of the Franklin Second Reader, and supplementary readers. The fault to be most carefully avoided in this and all succeeding grades of the primary course is haggling over words. To prevent this all new and difficult words should be pronounced and their meaning explained before oral reading is begun. Then, by questioning, make sure that the pupil fully understands every sentence before he reads it. Make haste slowly, and give pupils much easy reading, rather than a little which is difficult.

WRITING.— Words and sentences as in the first year, and from dictation. Use capitals, the period and the question-mark.

SPELLING.— Words of the reading lesson written on blackboard by teacher, copied by pupils, and afterwards written from dictation or spelled orally, or both. Teach also the spelling of some proper nouns, as days of the week, etc.

LANGUAGE.— Object: To stimulate thought, to cultivate the powers of observation and imagination, and to develop facility in the use of good English.

Oral and written exercises. Use for material such objects and topics as will furnish the best opportunity for the expression of thought, and make sure that the pupil always has the thought clearly in mind before he is required, or even allowed, to say or write anything. Train observation by noting qualities and uses of objects, and the imagination by stories suggested by pictures. In connection with sentences written from dictation, teach capitals and a few common abbreviations.

ARITHMETIC.— Numbers, oral and written, in separations and combinations, to twenty. Objects may be used if necessary, but ought not to be greatly needed. Continue drill in applied and abstract work. Simple operations in small fractions and in denominate numbers also continued. Teach pupils to read the signs +, −, etc., and to use them as well as know their meaning. Form and read tables to the limit of known numbers in this and all succeeding grades.

GEOGRAPHY.— Continue drill in cardinal directions, applying the terms north, south, etc., to all objects near enough to the schoolhouse to be within range of the child's observation or knowledge. Apply same to direction of wind. Repeat plan of desk by pupils, and of room or yard by teacher, and speak of the plans as "maps," but do not require definitions. Continue study of objects within vision, as cloud, dew, ice, fog, etc.

NATURE STUDY.— Work of the first year continued and extended. Find properties of common minerals and note their uses. Of plants name parts, as stem, leaf, bud, etc. Name parts and note habits of animals, birds, insects, etc. Remember that no lesson is worth giving which does not thoroughly interest the pupil at the time, and tend to increase his regard for the natural objects which are all about him. Have pupils draw and describe, orally and in writing. In this year read Wood's "First Natural History Reader," and Wright's "Seaside and Wayside, No. 1."

PHYSIOLOGY.— The senses: the eye and sight; the ear and hearing. Teach only the most general features, any thorough study of the anatomy of the eye or ear being wholly out of place. Teach by observation and experiment as far as possible. Temperance teaching as before.

SECOND HALF.

READING.— Franklin Second Reader completed. Phonic drill continued. If pupils cannot easily complete the Second Reader, omit the last part, and substitute easy reading from supplementary readers.

WRITING.— On ruled paper, with pencils, from blackboard copy, from dictation, and from print as found in the reading book.

SPELLING.— As in the first half. Have words used in sentences. Teach the spelling of terms used in other studies, and of objects like articles of food or clothing with which children are familiar.

LANGUAGE.— Object: as in the first half. Oral and written exercises. Continue the reproduction and picture stories, and simple descriptions of objects, scenes and actions. Have the pupils construct sentences, using words taken from the reading lessons, or suggested by the teacher. Continue to give attention to capi-

tals and the most common marks of punctuation, and teach the simplest form of letter-writing.

ARITHMETIC.— Numbers, oral and written, to fifty, with drill as in the first half. Give much practice in oral examples, with abstract numbers involving several operations, for rapid work. Roman notation to fifty. Coins and dollar sign; pint, quart, gallon; pint, quart, peck, bushel; inch, foot, yard; hour, day, week, month, year; dozen. Fractions, $\frac{1}{2}$, $\frac{1}{4}$. $\frac{1}{8}$, $\frac{1}{3}$, $\frac{1}{6}$.

GEOGRAPHY.— Continue work of first half, and begin the work of recognizing and naming bodies of land and water which are within the range of the pupils' observation, as hill, valley, river, brook, etc. Field lessons are strongly recommended. Pupils draw school room. With growing plants in the school room, teach effects of too great heat or cold, lack of moisture, etc.

NATURE STUDY.— As in the first half. Continue collections. Experiment with seeds planted in pots in the school room. Have children gather cocoons, and watch for the change into moths and butterflies. Make regard for animal life an integral part of all lessons on animals. Observe, draw, describe.

PHYSIOLOGY.— The senses continued; The nose and smell; the tongue and taste; touch. Show the use and value of all the senses, and the ill effects of abuse, including under the latter topic the effects of alcohol and tobacco. Be careful not to lessen influence by over-statements.

THIRD YEAR.

FIRST HALF.

READING.— The first half of the Franklin Advanced Second Reader, and supplementary readers. The habit of reproducing that which has been read, usually orally, but sometimes in writ-

ing, which should have already been begun, becomes in this and succeeding grades a matter of the greatest importance, and every reading lesson should have in connection with it some work of this kind.

WRITING.— On ruled paper with pencil, and in the tracing book No. 1 with pen. Give special attention to correct pen holding. In all written work in language, nature study, etc., insist on order, neatness, and the very best penmanship of which the pupil is capable.

SPELLING.— Words and sentences copied from the reading book, and afterwards written from dictation. New words in the reading lessons spelled orally, and afterwards written in sentences. Be sure that no pupil is called upon to spell a word the meaning of which is not known. Insist upon correct spelling in all written work. Give much drill on familiar words which are often misspelled, but do not consider it necessary to teach the spelling of all the difficult and uncommon words which are found in the reading book.

LANGUAGE.— Oral and written exercises. Review, continue, and extend all work of previous grades. Teach different forms of sentences, the use of is, are ; was, were ; did, done ; saw, seen, etc. ; the correct use in sentences of some synonyms, as big, large ; like, love, etc. ; and a few homonyms, as fore, four ; write, right ; no, know, etc. ; the use of capitals with proper names, some abbreviations and such punctuation as is needed in the written work done by the pupils. Consult Powell's "How to Write," Mrs. Knox-Heath's "Elementary Lessons in English," and Tarbell's "Lessons in Language," Book I.

ARITHMETIC.— Numbers, oral and written, Arabic and Roman notation, to one hundred. Drill as before on rapid, applied, and abstract work, and give considerable attention to adding numbers in columns, and to the multiplication table, the latter being, of

course, developed before it is memorized. Review and extend all previous work, especially that in fractions and denominate numbers.

GEOGRAPHY.— Teach as many land and water surfaces as can be brought within the range of observation (names, not definitions), and, by the aid of pictures, begin to develop some knowledge of objects beyond vision. Field lessons and sand modeling, if possible. Consult Nichols' "Topics in Geography," Grade II, Frye's "Brooks and Brook Basins," and "Child in Nature."

NATURE STUDY.—Observation lessons on familiar plants, animals, and minerals continued, to include some knowledge of parts, habits, uses, qualities, etc., with comparisons noting resemblances and differences. Read in this year, "Wood's Second Natural History Reader" and "Seaside and Wayside, No. 2." Consult Ricks' "Natural History Lessons."

PHYSIOLOGY.— The bones, teeth, skin and muscles. Teach few names, and only the most general features, giving special attention to the laws of health. Temperance teaching continued. Throughout this year some exercises may well be written, and the interest may be increased by drawing some of the parts described.

SECOND HALF.

READING.— Franklin Advanced Second Reader completed, and supplementary readers. Continue phonics and enunciation exercises, and teach syllables, accent, and the use of diacritical marks.

"The best way to teach children to read, after they are once started, is to put into their hands a good story book."— *Swett.*

WRITING.— Tracing book No. 2, with pen, and ruled paper with pencil, as before.

SPELLING.— As in the first half.

LANGUAGE.— Results to be accomplished: At the end of this year pupils should be able to reproduce the thoughts of others, whether read silently by themselves or told them by the teacher, and to express their own thoughts on any subject clearly within the limits of their own knowledge, with considerable facility and in correct and appropriate forms of speech. They should have some knowledge of the simplest form of letter-writing, and should know the usual marks of punctuation, the common abbreviations, and the proper use of capital letters.

The work to be done is best indicated by the above statement. Consult books previously referred to, especially "Tarbell's Lessons," of which Part I will be the work for pupils in the first half of the fourth year.

ARITHMETIC.— Numbers to one hundred and forty-four. Arabic and Roman notation to one thousand. Review and extend the work of all previous grades. To be ready for promotion to a grammar school, children should be able to add columns of figures to a total of 100 rapidly and accurately; to know the multiplication table to twelve times twelve; to use all the common tables of denominate numbers in simple reductions; to find fractional parts of all numbers less than 144 which are multiples of fractions to and including twelfths; and to add, subtract, multiply, and divide small fractions, like $\frac{1}{2}$, $\frac{1}{4}$, and $\frac{1}{8}$.

GEOGRAPHY.— Continue work of first half and review and extend work of all previous grades. Teach by observation as far as possible, and then, by the use of pictures, as many bodies of land and water as is possible. Observe, draw, model, and describe.

NATURE STUDY.— Lessons as in the first half.

PHYSIOLOGY.— Circulation, respiration and digestion. As before, avoid teaching too much, and make the instruction as practical as possible by relating each fact learned to some simple and easily followed law of health.

GRAMMAR SCHOOLS.

FOURTH YEAR.

READING.— Franklin Third Reader and supplementary readers of the same grade.

SPELLING.— Words in common use, orally and in writing. Written spelling should predominate, and in succeeding grades should occupy relatively more and more time. By definition, or use in sentences, make sure that pupils understand the meaning of all words given for a lesson. Make every written exercise a lesson in spelling. Select words for practice from all text books used, and for supplementary drill use Worcester's New Pronouncing Speller: First half to page 29; Second half to page 47.

ARITHMETIC.— Numbers to 1000. Daily oral drill in numbers to 100, as in the primary schools. Written work, with numbers expressed by not more than three figures, in addition, subtraction, multiplication and division, no multiplier or divisor to be larger than 9. Use terms, sum, product, multiplier, etc., but do not require definitions. Give problems in dollars and cents, using the dollar sign and decimal point. Continue the drill of the primary school in easy reductions of denominate numbers. Teach thoroughly the reduction, addition, subtraction, multiplication and division of the fractions, $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$, $\frac{1}{3}$, $\frac{1}{6}$, $\frac{1}{9}$, $\frac{1}{12}$, illustrating all processes by objects, but using the written expressions from the first. Second half: continue and extend all work of the first half. Notation and numeration to 1,000,000. Multiplication with multipliers large enough to be expressed by two or three figures, and long division, no divisor larger than 25. Decimals to thousandths in addition and subtraction, and in multiplicands and dividends in multiplication and division.

LANGUAGE.— Work of the third year continued. Teach the sentence, kinds and parts, and give such written exercises as will

review and extend knowledge of the proper use of capitals, punctuation marks, and abbreviations. Continue letter writing, both original and from dictation; Second half, continue work of first half, and for new work teach nouns, their kinds, plurals and possessives.

GEOGRAPHY.— The earth as a whole, with land and water forms; the air, winds, dew, rain, snow, etc. Teach by observation as far as possible, relating that which is beyond vision to that which has been observed as far as it can be done, and using pictures to still further assist the imagination. Second half, the use of globes and maps and a brief general study of the hemispheres and their grand divisions, North America, the United States as a whole, and the New England and Middle States more in detail.

HISTORY.— Child's Book of History as a reader.

NATURE STUDY.— Continued study of plant life, emphasizing the changes from flower to fruit and seed; continued study of animals for recognition, habits, and adaptation of parts; Second half, more detailed study of the plant and its parts, with conditions of germination and growth, such as need of air, light, warmth, moisture and proper soil; pebbles, sand and clay with reference to life history of rocks.

Writing, Drawing and Music as directed by the supervisors of those branches in this and succeeding grades. Sewing under direction of the special teacher in this and the next two grades.

FIFTH YEAR.

READING.— Franklin Fourth Reader, and supplementary books.

SPELLING.— As in the fourth year, with words for supplementary drill: First half to page 69 in the authorized text book; Second half to page 93.

ARITHMETIC.—Continue all the work of the previous year. Whatever else is omitted see that oral drill and rapid written work with small numbers are given prominent places on the programme. Notation and numeration to hundreds of millions. Give many examples and problems with small numbers, rather than a few with large numbers. Long division with divisors of not more than three figures. In addition to constant practice with fractions already learned, teach $\frac{1}{5}$, $\frac{1}{10}$, and continue practice in the use of decimals. Use Bradbury's Eaton's Arithmetic to page 60, but omit all the examples involving long and tedious operations with large numbers; Second half, continue work of the first half. Teach the reduction, addition, subtraction, multiplication and division of fractions to and including twenty-fourths. Teach least common multiple when needed as a means of finding the least common denominator of fractions, and factoring and cancellation when needed for practical use.

LANGUAGE.—Dictation, reproduction, description, narration work and letter writing continued. For new work teach the use of adjectives, with their comparisons, and pronouns. Second half, continue work of first half with careful attention to the use of punctuation marks, capitals, etc., and complete the study of the use of the parts of speech not already learned as outlined in Tarbell's Lessons from page 156 to the end of the book.

GEOGRAPHY.—Complete the study of the groups of states which compose the United States, and of South America. Second half, teach of Europe, Asia, Africa and Oceania, making the work simple, general and elementary, as would be suggested by the authorized text books.

HISTORY.—Scudder's Short History as a reading book.

NATURE STUDY.—Study of trees, for recognition by differences in size, form, leaves, bark, etc.; study of one insect, as grasshopper, butterfly or moth, as type; gather cocoons and note meta-

morphosis. Second half, study of plants and their growth continued, emphasizing roots and stems ; of rock-forming minerals, as quartz, mica, feldspar, hornblende, etc. Note use as building stones.

PHYSIOLOGY.— Book No. 1 of the Union Series as a reader, with such comment and instruction in this and succeeding grades as shall comply with the following law of this State: "Physiology and hygiene, which shall include special instruction as to the effects of alcoholic drinks, stimulants and narcotics on the human system shall be taught as a regular branch of study to all pupils in schools supported by public money."

SIXTH YEAR.

READING.— Franklin Intermediate and supplementary readers.

SPELLING.— As before, correlate spelling with every subject taught. Make every written exercise a lesson in spelling, and for supplementary drill use the authorized text book; First half, to page 111; Second half, to page 125.

ARITHMETIC.— Continue oral drill and rapid written work with small numbers. Make practice in fractions a prominent feature during the year, but do not attempt to master the too difficult problems on pages 93 to 101 of the text book. Teach decimals more fully than before, and give many problems involving the use of United States money and the reduction of denominate numbers. Second half, continue all work of first half. Practice in compound numbers should include all common reductions, but should omit the addition, subtraction (with the exception of the subtraction of dates), multiplication and division of compound numbers as such, longitude and time, metric equivalents, etc.

LANGUAGE AND GRAMMAR.—First half, (*a*) Language:— A careful review of the work of previous years, as suggested by the first 14 pages of the authorized text book. Suggest and, as far as

possible, provide abundance of good selections of both poetry and prose for pupils' reading in this and all higher grades. Draw liberally on the Public Library. See that at least one brief selection or memory gem is memorized each month.

(*b*) Grammar.—(1) The analytic study of the sentence, subject and predicate, essential and complete; (2) the classification of words *according to their use in sentences*, to include nouns and pronouns. (Southworth and Goddard, pp. 77–98.)

Second half, (*a*) Language:—Review and extend the knowledge and practice of letter writing, including the heading, address, salutation, body, complimentary ending, signature and superscription, as suggested in the text book, pages 14 to 36.

(*b*) Grammar.—The classification of words as before continued to include all the parts of speech not already studied (pp. 98–126.

Geography.—Mathematical, physical and political. Geography of the earth as a whole, with a general study of the hemispheres, as outlined in the first 26 pages of Butler's Complete Geography. Second half, North America, the United States as a whole, and the New England and Middle States in detail.

History.—Scudder's Short History as a reading book.

Nature Study.—Study of trees continued. In spring emphasize clusters of flowers, maple, elm, horse chestnut, etc., and in fall tree fruits and the dispersion of seeds. Study of birds, grouping according to habits; e. g. aerial—perchers; terrestrial—scratchers; aquatic—swimmers, and the adaptation of parts to these habits.

Physiology.—Book No. 2 of the Union Series as a reading book, with comment and instruction as before.

SEVENTH YEAR.

Reading.—Franklin Intermediate and supplementary readers.

SPELLING. — Work of the sixth year continued. For supplementary drill use Worcester's New Pronouncing Speller. First half to page 135; Second half to page 145.

ARITHMETIC. — Review constantly the work of all preceding grades, but especially the work in fractions and denominate numbers. For advance work take up percentage, with applications to profit and loss, insurance, brokerage, taxes, etc. Second half, to work of first half add interest, simple and compound, with applications to promissory notes and discounts at banks. Note that "Days of Grace" are no longer required on commercial paper other than sight drafts. (This work is an advance on that of preceeding years, and need not be entered upon before September, 1897, if classes are not sufficiently advanced to make it practicable to go so fast.)

LANGUAGE AND GRAMMAR. — First half, (*a*) Language: — To the letter writing, dictation and reproduction exercises of the previous year add narrative writing, with careful attention to capitals, punctuation and paragraphing as before. No day should be allowed to pass without some form of composition exercise as indicated above.

(*b*) Grammar. — Sentence building; the base of a sentence, with modifiers; sentence analysis (pp. 126–156.)

Second half, (*a*) Language. — The work of the first half continued and extended. It is of far more importance to any pupil that he should be able to write a properly arranged and well-worded letter or express himself tersely and clearly in orderly narration than that he should know much of technical grammar, and excellence in the latter should never be sought at the expense of the former.

(*b*) Grammar. — Structure of sentences continued, reviewing and extending work of past years. Begin the classification of the parts of speech according to *kind, form* and *use;* nouns (pp. 156–183.)

GEOGRAPHY.— Atlantic, Gulf and Central States; Second half, Rocky Mountain and Pacific States and Territories, British America, Mexico, the Central American Republic and other States, and West Indies.

HISTORY.— Discovery, exploration and conquest of America to date of first permanent English settlement; Second half, the settlement of North America to the beginning of the French and Indian war.

NATURE STUDY.—Grains and grasses in the fall; rose family in spring. For animal study specialize on some typical family, as e. g. for marine animals, the oyster or clam, the lobster or crab. Compare with vertebrates (fish). For work in minerals, the study of some common metals and their ores, as iron, copper, etc.

PHYSIOLOGY.— First half, food and digestion; Second half, the blood, blood vessels and circulation. General facts relating to laws of health are to be emphasized rather than minor details of structure. Teach origin and effects of the use of alcohol as required by State law.

EIGHTH YEAR.

READING.—New Fifth Reader and supplementary books.

SPELLING.— Relate spelling to all other subjects taught as in previous years and use the authorized text book for additional drill. First half to page 155; Second half to page 163.

ARITHMETIC.— Interest, with applications to business transactions, with reviews of all previous work as before. Second half, further applications of the principles of percentage and interest to bank discounts, stocks and bonds, exchange and partnership. Omit, of subjects mentioned in Bradbury's Eaton's Arithmetic, equation of payments, problems in exchange involving interest bearing drafts, and the more complicated problems in partnership.

LANGUAGE AND GRAMMAR.—First half, (*a*) Language—Letter writing, reproduction exercises and narrative writing continued, with careful attention to capitals, punctuation and paragraphing as before. Relate language to all subjects studied by giving the preference in the choice of topics to those which are suggested by the study of history, geography, etc.

(*b*) Grammar.—(1.) Analysis and synthesis of sentences continued; (2.) Classification of words as to kinds, forms and uses continued, to include pronouns and adjectives. (pp. 183–219.)

Second half, (*a*) Language:—To exercises previously suggested add descriptive writing with subjects chosen as in the first half. Choice extracts of prose and poetry should be studied for the sentiment conveyed as well as for beauty of style and elegance of diction. Do not forget the direction given at the beginning of the course that at least one selection each month should be carefully memorized by every pupil.

(*b*) Grammar:—To a constant review of the work of all past years add the study of verbs as to kinds, forms, uses, etc. (pp. 219–263.)

GEOGRAPHY.—South America and Europe. Second half, Asia, Africa, Oceania, with a general study of the principal commercial routes of the world, and of the chief exports of leading commercial ports.

HISTORY.—The conquest of Canada, and the development of the English colonies in America into the United States to the time of the Treaty of Paris in 1783. Second half, the establishment, growth and history of the Union under the Constitution to the administration of Andrew Jackson, 1829.

PHYSIOLOGY.—The study of the human body as outlined in the authorized text book, Union Series, Book 3, to include the respiratory system, the bones, joints and muscles. Second half, study of the subject as outlined in the text book completed.

NATURE STUDY.— Birds, from observation, for recognition, knowledge of the time of arrival and departure of those which are migratory, habits, food, nesting, etc. Pupils ought at the end of the year to know from personal observation a dozen kinds. (One observer has seen and studied 120 kinds in Lowell and vicinity, of which lists will be furnished on application.) In mineral study, the coal series. A study of combustion as illustrated in the candle flame and to be associated with the study of the coal series, optional, though recommended.

NINTH YEAR.

READING.— New Fifth Reader, masterpieces of American Literature, and other supplementary books. Read and study as literature Irving's Rip Van Winkle and Longfellow's Evangeline in the first half year, and Whittier's Snow Bound, Hawthorne's Great Stone Face and Lowell's Vision of Sir Launfal in the second.

SPELLING.— As in previous years, with supplementary drill on words found in the last part of Worcester's Speller in the first half, and on the whole book in the last half.

ARITHMETIC.— Ratio, proportion, involution, evolution, to include second and third roots, mensuration of plane figures and comparison of similar surfaces. Second half, general review of the whole subject.

ALGEBRA.— The expression of quantities by algebraic symbols; the equation, including transposition of terms, solution, verification, etc.; many problems to be solved by the use of simple equations, and the addition, subtraction, multiplication and division of integral algebraic expressions, with theory of negative quantities, the use of parenthesis, factoring, etc.

LANGUAGE AND GRAMMAR.— First half, (*a*) Language: — Continue every form of exercise hitherto suggested, with special atten-

tion to paragraphing and to discrimination in the choice of words, synonyms, variety of expression, etc. In letter writing add to familiar and business letters formal notes of invitation and answers to the same.

(*b*) Grammar: — No division of work into first half and second half is attempted. In the whole year review and extend the work of previous years.

GEOGRAPHY.— Give special attention to local geography and that of the State, and review briefly the mathematical, physical and political geography of the earth as a whole, and of the United States and other political divisions of North America. Omit geographical study in the last half of the year.

HISTORY.— First half, complete the history of the United States to date. Second half, review the whole subject.

BOOK-KEEPING.— Devote to book-keeping one half of the time allotted to penmanship, under the direction of the special teacher.

NATURE STUDY.— Trees from observation. Pupils ought to be able at the end of the year to locate and describe fifty varieties which they have seen in the city. Collections of woods are recommended. The orderly study of physical forces, heat, gravity, combustion, light, sound, etc., optional, though recommended.

HIGH SCHOOL.

ENGLISH COURSE.

FIRST YEAR.

First Term.	Second Term.
Algebra.	Algebra.
General History.	History and English.
English Lessons.	Physical Geography.
Book-keeping (optional).	Book-keeping (optional).

SECOND YEAR.

First Term.
French.
English.
Geometry.
Physics.

Second Term.
French.
English.
Geometry.
Physics.

THIRD YEAR.

First Term.
French.
English.
Chemistry.
Arithmetic.
Astronomy.

Second Term
French.
English.
Chemistry.
Physiology.
Constitutional History.

MANUAL TRAINING COURSE.

FIRST YEAR.

Algebra.
History.
English.
Drawing and Woodworking.

SECOND YEAR.

Plane Geometry.
Physics.
English.
Drawing, Wood Turning, Wood Carving and Pattern Making.

THIRD YEAR.

Advanced Algebra and Geometry.
French or Chemistry.
English Language and Literature.
Drawing, Metal Working, Moulding, Forging, etc.

FOURTH YEAR.

Solid Geometry.
French.
English Language and Literature.
Drawing, and Machine Shop Practice.

CLASSICAL COURSE.

FIRST YEAR.

First Term.	Second Term.
Latin.	Latin.
English.	Algebra.
Algebra.	Physical Geography.

SECOND YEAR.

First Term.	Second Term.
Latin	Latin.
English.	English.
Geometry.	Geometry.
Physics.	Physics.

THIRD YEAR.

First Term.	Second Term.
Latin.	Latin.
French.	French.
English.	English.
Chemistry.	Physiology.
Arithmetic.	Constitutional History.

FOURTH YEAR.

First Term.	Second Term.
Latin.	Latin.
French.	French.
German.	German.
English.	English.
Astronomy.	Geology.
	Botany.

COLLEGE COURSE.

FIRST YEAR.

First Term.	Second Term.
Algebra.	Algebra.
Latin.	Latin.
Greek History.	Roman History.

SECOND YEAR.

First Term.	Second Term.
Latin.	Latin.
Greek.	Greek.
English.	English.
Geometry.	Geometry.
Physics.	Physics.

THIRD YEAR.

First Term.	Second Term.
Latin.	Latin.
Greek.	Greek.
French.	French.
English.	English.
Mathematics.	Mathematics.
Physics.	Physics.

FOURTH YEAR.

First Term.	Second Term.
Latin.	Latin.
Greek,	Greek.
French.	French.
English.	English.

NOTE A.— Each scholar is expected to pursue three regular studies. Any change from this rule must be subject to the approval of the principal.

NOTE B.— Composition, Elocution, Music, and Military Instruction are required throughout the course.

NOTE C.— Five years may be taken to complete the college course.

NORMAL SCHOOL COURSE.

The following are the requirements for admission to a Normal School as printed in a circular issued by the State Board of Education. By the omission of astronomy and geology the classical course becomes the one which meets the conditions imposed.

Candidates for admission to any one of the normal schools must have attained the age of seventeen years complete, if young men, and sixteen years, if young women; and must be free from any disease or infirmity which would unfit them for the office of teacher. They must present certificates of good moral standing, give evidence of good intellectual capacity (*records of their scholarship standing in the high schools are desired*) and be graduates of high schools whose courses of study have been approved by the Board of Education; or they must have received, to the satisfaction of the principal and the Board of Visitors of the school, the equivalent of a good high school education. The examinations for admission shall cover such elementary and high school subjects as may be determined by the Board.

For 1896 and thereafter, until further notice, the examinations will embrace papers on the following groups, a single paper with a maximum time allowance of two hours to cover each of groups 1, 2 and 4, and a single paper with a maximum time allowance of one hour to cover each of groups 3 and 5 (*five papers with a maximum time allowance of eight hours*): —

1. *Languages.*— (*a*) English, with its grammar and literature, and (*b*) one of the three languages,— Latin, French and German. The candidate is earnestly advised to study *Latin* and either *French* or *German*.

2. *Mathematics.*— (*a*) Arithmetic, (*b*) the elements of algebra, and (*c*) the elements of plane geometry.

3. *History and Geography.*— The history and civil government of Massachusetts and the United States, with related geography and so much of English history as is directly contributory to a knowledge of United States history.

4. *Sciences.*— (*a*) Physical geography, (*b*) physiology and hygiene, (*c*) physics, (*d*) botany, and (*e*) chemistry.

5. *Drawing and Music.*— (*a*) Elementary, mechanical and free-hand drawing, with any one of the topics,— form, color and arrangement, and (*b*) musical notation.

SUMMARY OF THE ANNUAL RETURNS OF THE PUBLIC SCHOOLS OF THE CITY OF LOWELL, FOR THE YEAR ENDING DECEMBER 23, 1896.

SCHOOL.	LOCATION.	Whole No. Enrolled.			No. of pupils belonging Dec., 1896.			Whole No. of pupils on time books since Jan. 1, 1896.			Average No. of pupils belonging to school.			Average daily attendance.			No. ent'd not r'e'd from any other pub. sch'l.	R'e'd from other public sch'ls of lower grade.	R'e'd from other public schools of same grade.	Sent to other public schools of higher grade	Sent to other public schools of same grade.	No. having certificate of schooling for mills.	No. over 14 years of age.	No. between 10 and 14 years of age.	No. between 6 and 10 years of age.	Number under 6 years of age.	Per ct. of attendance.
		Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.											
High	Kirk and Anne Sts.	332	377	709	332	391	723	455	515	970	313	365	678	296	347	643	26	261	21	....	....	....	944	24	....	....	96
Bartlett (Gram)	Hancock Ave. and Clark St.	235	235	470	224	198	422	309	276	585	218	201	419	202	181	383	66	87	28	30	45	....	98	389	98	....	92
PRIMARIES.																											
Cross St.	Cross St., near Mt. Vernon St.	112	116	228	77	90	167	127	141	268	76	81	157	71	77	148	41	17	23	33	37	....	1	27	207	33	94
Morrill	Adams and Common Sts.	164	129	293	98	74	172	176	142	318	101	61	162	100	52	152	93	....	25	53	41	1	7	71	170	70	94
School St.	School St., bet. Pawtucket and Bowers Sts	48	53	101	31	34	65	55	61	116	30	38	68	27	33	60	31	....	15	17	9	....	1	10	86	19	89
	Totals for Primaries	324	298	622	206	198	404	371	340	711	207	180	387	198	162	360	165	17	63	103	87	1	9	108	463	122	91
Butler (Gram)	Gorham St.	337	330	667	338	326	664	451	441	892	325	333	658	308	310	618	37	177	48	44	37	24	142	594	111	....	94
PRIMARIES.																											
Agawam St.	Cor. Agawam and Barrington Sts.	68	67	135	50	49	99	87	78	165	52	49	101	49	45	94	27	14	16	31	16	....	....	20	133	12	93
Carter St.	Carter St.	108	117	225	78	80	158	118	129	247	80	77	157	76	72	148	59	....	22	40	24	....	....	16	200	31	94
London St	Cor. London and West Sts.	79	88	167	58	62	120	123	101	224	62	52	114	53	48	101	51	31	26	26	12	....	....	48	142	34	89
Lyon St.	Cor. Central and Lyon Sts.	155	139	294	118	104	222	166	159	325	107	100	207	101	94	195	150	....	31	50	24	....	1	28	238	58	94
Weed St.	Cor. Gorham and Weed Sts.	91	78	169	67	51	118	97	87	184	59	51	110	55	45	100	62	....	15	25	13	....	....	8	147	29	92
	Totals for Primaries	501	489	990	371	346	717	591	554	1145	360	329	689	334	304	638	349	45	110	172	89	....	1	120	860	164	92
Training (Gram)	Lawrence St.	209	156	365	176	154	330	231	247	478	181	158	339	142	124	266	25	77	36	34	33	5	129	210	26	....	93
PRIMARIES.																											
Ames St.	Cor. Ames and Lawrence Sts.	105	96	195	94	76	170	130	110	240	80	69	149	75	62	137	88	7	88	29	13	....	....	26	172	42	92
Central St.	Central St., opp. Hudson St.	115	128	243	79	95	174	127	141	268	85	94	179	79	84	163	48	....	25	38	25	....	....	54	187	27	91
Training	Charles St., near Lawrence St.	76	83	159	67	63	130	100	111	211	62	61	123	53	55	108	58	12	40	21	22	....	....	22	117	20	88
	Totals for Primaries	296	301	597	240	234	474	357	362	719	227	224	451	207	201	408	194	19	103	88	60	....	....	80	359	69	90

SUMMARY OF THE ANNUAL RETURNS OF THE PUBLIC SCHOOLS.—Continued.

Edson (Gram)..... PRIMARIES.	Cor. Highland and South Sts.....	210	246	456	206	225	431	282	303	585	192	226	418	181	211	392	31	87	42	26	29	11	148	395	42	....	94
Chapel St.....	Chapel St., opp. Pollard St.....	48	62	110	37	41	78	54	65	119	38	43	81	36	41	77	29	....	9	18	14	....	....	21	54	44	95
Charles St.....	Charles St., near Gorham St.....	105	89	194	89	60	149	122	103	225	67	70	137	65	64	129	128	....	31	27	49	....	....	44	166	15	94
Cottage St.....	Cor. Cottage and Chapel Sts.....	42	59	101	27	47	74	49	66	115	32	40	72	30	36	66	29	....	14	18	10	....	....	23	79	13	91
Eliot	Cor. Summer and Favor Sts.....	143	128	271	74	76	150	160	141	301	84	78	162	78	72	150	157	....	30	24	53	....	6	58	213	24	92
	Totals for Primaries.....	338	358	676	227	224	451	385	375	760	221	231	452	209	213	422	343	....	84	87	126	....	6	146	512	96	93
Green (Gram)..... PRIMARIES.	Merrimack St., opp. Colburn St...	281	228	509	251	207	458	349	289	638	227	186	413	213	177	390	83	92	37	24	18	6	167	420	51	....	92
Cabot St.....	Cor. Cabot and Ford Sts.....	178	125	303	93	59	152	192	136	328	92	57	149	85	53	138	147	....	25	29	23	1	10	97	185	36	91
Cheever St.....	Cor. Cheever and Tucker Sts.....	147	107	254	65	46	111	150	109	259	55	42	97	51	36	87	254	....	5	14	6	10	24	66	123	46	90
Kirk St.....	Cor. Kirk and Lee Sts.....	69	55	124	43	29	72	81	64	145	36	33	69	33	30	63	35	8	13	24	25	....	....	43	84	17	91
Worthen St.....	Worthen St., bet. B'dway and Market Sts.	155	169	324	82	98	180	172	196	368	87	90	177	80	81	161	105	7	37	49	40	4	12	85	260	69	90
	Totals for Primaries.....	549	456	1005	283	232	515	595	505	1100	270	222	492	249	200	449	541	15	80	116	94	15	46	291	652	168	90
Highland (Gram)... PRIMARIES.	Cor. Pine and Wilder Sts..... .	347	388	735	319	355	674	430	477	907	321	356	677	301	329	630	41	124	48	80	48	1	298	522	87	....	93
Dover St.....	Dover St., near Grove St..	105	116	221	74	92	166	109	143	252	82	83	165	74	77	151	28	20	11	47	16	....	....	16	193	23	92
Franklin	Junction of Branch and Middlesex Sts....	145	120	265	100	79	179	176	137	313	96	80	176	88	72	160	73	....	48	34	50	1	4	83	204	22	90
Plain St.	Cor. Chelmsford and Plain Sts.....	142	132	274	114	94	208	171	158	329	102	92	194	94	81	175	57	15	40	54	33	....	2	46	255	26	90
Powell St.....	Powell St., near liberty St.....	41	74	115	38	59	97	54	86	140	34	60	94	32	55	87	115	5	20	24	8	....	....	10	102	28	92
	Totals for Primaries.....	433	442	875	326	324	650	510	524	1034	314	315	629	288	285	573	273	40	119	159	107	1	6	139	561	76	90
A. Lincoln (Gram). PRIMARIES.	Chelmsford St., near Lincoln St.....	159	194	353	165	201	366	239	258	497	161	194	355	149	177	326	33	97	47	14	27	2	102	227	50	....	92
Howard St.....	Howard St., near Hale St	106	136	242	72	87	159	130	151	281	70	83	153	63	76	139	75	....	39	40	41	2	15	61	189	16	90
	Totals for Primaries.....	106	136	242	72	87	159	130	151	281	70	83	153	63	76	139	75	....	39	40	41	2	15	61	189	16	90
Moody (Gram)..... PRIMARIES.	Cor. Rogers and High Sts.....	189	182	371	182	183	365	238	230	468	172	165	337	161	152	313	40	71	26	19	17	2	106	275	84	....	93
Fayette St.....	Fayette St., bet. Chestnut and Everett Sts.	60	41	101	35	20	55	74	47	121	36	25	61	33	22	55	30	....	20	15	16	....	....	28	90	3	90
High St	High St., bet. Chestnut and Everett Sts....	50	39	89	23	19	42	58	46	104	27	20	47	25	19	44	19	5	10	19	16	....	....	21	35	48	94
Oaklands.....	Sycamore St., near Wentworth Ave.....	32	11	43	27	12	39	34	15	49	26	10	36	25	9	34	10	2	4	8	10	....	....	1	38	10	91
Pond St.....	Cor. Pond and High Sts.....	77	72	149	52	64	116	91	89	180	52	55	107	49	49	98	19	19	12	30	5	....	....	14	140	26	92
	Totals for Primaries.....	219	163	382	137	115	252	257	197	454	141	110	251	132	99	231	78	26	46	72	47	....	....	64	303	87	91
Pawtucket (Gram). PRIMARIES.	Cor. Mammoth Road and Fourth Ave.....	127	126	253	109	119	228	142	148	290	108	114	222	105	110	215	28	30	7	18	10	3	89	173	28	....	97
Mammoth Road...	Mammoth Road, Gram. School Building..	112	108	220	84	73	157	123	116	239	85	72	157	80	65	145	50	1	18	31	20	...	1	26	186	26	93
	Totals for Primaries..... ..	112	108	220	84	73	157	123	116	239	85	72	157	80	65	145	50	1	18	31	20	...	1	26	186	26	93

SUMMARY OF THE ANNUAL RETURNS OF THE PUBLIC SCHOOLS.—Continued.

SCHOOL.	LOCATION.	Whole No. Enrolled.			No. of pupils belonging Dec., 1896.			Whole No. of pupils on time books since Jan. 1, 1896.			Average. No. of pupils belonging to school.			Average daily attendance.			No. ent'd not r'd from any other pub. sch'l.	Rec'd from other sch'ls of lower grade.	R'c'd from other public sch'ls of same grade.	Sent to other public sch'ls of higher grade	Sent to other public schools of same grade	No. having certificates of schooling for mills.	No. over 14 years of age.	No. between 10 and 14 years of age.	No. between 6 and 10 years of age.	Number under 6 years of age.	Per ct. of attendance.
		Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.											
PRIMARIES.																											
Varnum (Gram)	Myrtle and Beach Sts., Centralville	335	349	684	324	304	628	452	450	902	312	302	614	293	287	580	89	181	37	43	24	12	193	583	126	...	94
Billings St.	Billings St., near Hildreth St.	56	63	119	46	53	99	68	74	142	37	44	81	34	42	76	70	3	20	22	14	....	....	15	134	15	93
Lakeview Ave.	Lakeview Av., bet. West and Lilley Ave.	230	159	389	129	80	209	248	174	422	129	78	207	117	73	190	209	....	33	41	50	....	18	87	262	55	92
Tenth St.	Tenth St., cor. Varnum St.	112	102	214	86	75	161	138	130	268	80	71	151	75	65	140	44	25	29	57	22	....	....	25	224	19	93
West Sixth St.	W. Sixth St., bet. Coburn and Jewett Sts.	146	108	254	96	74	170	176	130	306	98	79	177	91	73	164	62	8	44	47	41	....	1	69	221	15	93
	Totals for Primaries	544	432	976	357	282	639	630	508	1138	344	272	616	317	253	570	385	36	126	164	127	....	19	196	841	104	92
MIXED SCHOOLS.																											
Middlesex Village	Cor. Middlesex and Connell Sts.	57	59	116	54	50	104	75	68	143	47	43	90	43	36	79	116	....	27	11	28	1	3	52	49	12	88
Varnum Ave.	Varnum Av., Pawtucketville	13	5	18	16	9	25	19	11	30	13	6	19	10	4	14	18	....	12	....	4	....	2	12	11	5	74
	Totals for Primaries	70	64	134	70	59	129	94	79	173	60	49	109	53	40	93	134	....	39	11	32	1	5	64	60	17	81
KINDERGARTENS.																											
Agawam St.	Agawam St., Primary School Building	39	48	87	17	24	41	39	49	88	15	24	39	14	19	33	87	....	1	14	....	....	....	....	....	....	88	83
Bridge St.	Parker Block, Bridge St.	52	67	119	25	43	68	52	69	121	29	37	66	25	31	56	59	....	2	23	....	....	....	....	....	2	71	80
Dutton St.	Mechanics Building, Dutton St.	33	29	62	15	12	27	33	29	62	14	12	26	10	9	19	....	....	....	10	1	....	....	....	....	3	59	73
Highlands	Highland Cong. Church Vestry	41	55	96	19	30	49	42	53	97	19	27	46	16	23	39	96	....	....	28	....	....	....	....	....	2	95	85
A. Lincoln	Lincoln School Building, Chelmsford St.	45	45	90	21	30	51	46	45	91	22	24	46	18	20	38	30	....	1	21	1	....	....	....	....	1	50	83
Moody	Moody School Building, Rogers St.	68	76	144	38	38	76	88	86	174	39	42	81	31	31	62	144	....	30	40	30	....	....	....	....	1	84	76
Mt. Vernon St.	Cor. Mt. Vernon and Broadway Sts.	47	42	89	15	14	29	47	42	89	20	18	38	16	15	31	89	....	....	26	....	....	....	....	....	....	89	82
Training	Training School Building, Charles St.	62	44	106	27	12	39	60	47	107	23	14	37	19	12	31	106	....	1	16	3	....	....	....	3	104	84
Pawtucket	Pawtucket Church Vestry	19	21	40	14	17	31	19	22	41	15	16	31	12	14	26	40	....	1	....	....	....	....	....	....	....	41	84
Chapel St.	Cor. Chapel and Keene Sts.	22	17	39	24	14	38	26	18	44	22	14	36	21	11	32	39	....	5	1	....	....	....	....	....	....	44	88
Franklin	Franklin School Building, Branch St.	25	25	50	20	21	41	25	25	50	18	15	33	13	13	26	50	....	....	1	....	....	....	....	....	....	50	79
	Totals for Kindergartens	453	469	932	235	255	490	477	487	964	236	243	479	185	198	393	740	....	42	180	35	....	....	....	....	12	725	82
SUMMARY.—High School		332	377	709	332	391	723	455	515	970	313	365	678	296	347	643	26	261	21	....	....	....	944	24	....	....	96
Grammar Schools		2429	2434	4863	2294	2272	4566	3123	3119	6242	2217	2235	4452	2055	2058	4113	473	1023	356	332	288	66	1472	3788	703	....	92
Primary Schools		3422	3163	6585	2303	2115	4418	3936	3636	7572	2239	2038	4277	2077	1858	3935	2453	199	788	1035	798	19	103	1231	4926	928	93
Mixed Schools		70	64	134	70	59	129	94	79	173	60	49	109	53	40	93	134	....	39	11	32	1	5	64	60	17	85
Totals, not including Kindergartens		6223	6038	12291	4999	4837	9836	7608	7349	14957	4829	4687	9516	4481	4303	8784	3086	1483	1204	1378	1118	86	2524	5107	5689	945	92

AUDITOR'S

SIXTY-FIRST ANNUAL REPORT

OF THE

RECEIPTS AND EXPENDITURES

OF THE

CITY OF LOWELL, MASS.,

TOGETHER WITH THE

TREASURER'S ACCOUNT AND THE ACCOUNT OF THE COMMISSIONERS OF SINKING FUNDS, FOR THE FINANCIAL YEAR ENDING DECEMBER 31, 1896.

LOWELL, MASS.
MORNING MAIL COMPANY, PRINTERS.
1897.

CITY OF LOWELL.

IN BOARD OF ALDERMEN, January 12, 1897.

Received and ordered on file; sent down for concurrence.

GIRARD P. DADMAN, *City Clerk.*

IN COMMON COUNCIL, January 12, 1897.

Received and ordered on file, in concurrence.

FRANK N. OWEN, *Clerk.*

AUDITOR'S REPORT

OF THE

RECEIPTS AND EXPENDITURES

FOR THE YEAR ENDING DEC. 31, 1896.

AUDITOR'S REPORT.

City of Lowell,
Auditor's Office, Jan. 1, 1897.

To the City Council:

Gentlemen — In conformity with the requirements of the Ordinances of the City, I have the honor to present the Sixty-first Annual Report of the Receipts and Expenditures of the City of Lowell, for the year ending Dec. 31, 1896, exhibiting the same as classified in the several department accounts, with the value of the Real and Personal Property in charge of the several departments, and a statement of the City Debt and Debts due the City.

RECEIPTS.

The whole amount of money received into the City Treasury, from all sources, from Jan. 1, to Dec. 31, 1896, was.....	$2,982,011 87

Of this amount there was received on account of

Taxes of 1894	$ 21,759 57	
Taxes of 1895	131,400 19	
Taxes of 1896	905,181 14	
Schools	33,039 66	
School Houses	3,706 99	
Lowell Textile School	25,000 00	
Carter Street School	4 48	
Pine Street School	4 37	
New School Houses	200,000 00	
Public Buildings	7,423 36	
Streets	18,652 32	
Watering Streets	10,459 52	
Paving	25,010 05	
Sewers	97,417 25	
City Cemeteries	5,744 38	
Commons	932 50	
Paupers	10,611 82	
Paupers (Improvements at City Farm)	19,000 00	
Police	25,548 75	
Fire Department	5,411 45	
Lighting	5,524 55	
Library	4,119 92	
Health	265 57	
Water Works	219,003 99	
Reserved Fund	170,069 38	
State Aid	12,186 00	
Military Aid	3,172 50	
Soldiers Relief	695 60	
Interest	33,968 39	
City Debt	277,910 65	
National Bank Tax	4,538 41	
Abatement of Taxes	6,265 97	
Temporary Loans	600,000 00	
Fund for Ordinary City Debt	8,159 47	
Grade Crossings	20,000 00	
Corporation Tax	69,823 67	
		$2,982,011 87

EXPENDITURES.

The whole amount expended and ordered to be paid from the City Treasury, from Jan. 1, to Dec. 31, 1896, was: $2,866,830 20

The expenditures are charged to the following appropriations or accounts

Schools	$ 261,637 13
School Houses	43,025 70
Lowell Textile School	25,000 00
Carter Street School	21,200 28
Pine Street School	17,002 88
Addition to Lincoln School	18,565 25
Lexington Avenue School	4,292 33
Addition to Plain Street School	16,382 17
Bartlett School	67,063 83
Addition to Varnum School	59 92
Public Buildings	19,703 06
City Hall and Memorial Building	1,560 00
Addition to Police Stable	164 00
Streets	175,269 35
Watering Streets	10,235 62
Paving	16,164 37
Extension of Moody Street	65,312 44
Grade Crossings	10,164 05
Sewers	118,261 20
City Cemeteries	9,456 05
Commons	12,093 64
Paupers	95,862 22
Paupers (Improvements at City Farm)	18,277 07
Police	129,592 33
Fire Department	132,920 29
Lighting	86,475 20
Printing and Advertising	4,834 48
Library	17,129 52
Health	45,587 11
Water Works	213,610 59
Amount carried forward	$1,656,902 08

Amount brought forward.....	$1,656,902 08	
Driven Well Plant.....	55,234 56	
Reserved Fund.....	123,468 44	
Salaries.....	31,214 17	
State Aid.....	14,131 00	
Military Aid.....	6,365 00	
Soldiers Relief.....	6,651 64	
Interest.....	106,371 59	
City Debt.....	246,690 00	
National Bank Tax.....	14,892 73	
State Tax.....	53,914 29	
County Tax.....	70,288 17	
Abatement of Taxes.....	16,375 25	
Temporary Loans.....	425,000 00	
Fund for Ordinary City Debt....	31 28	
City Hall and Memorial Building Sinking Fund.....	7,500 00	
High School Sinking Fund.....	3,000 00	
Intercepting Sewer Fund.....	5,000 00	
Extension Rogers Fort Hill Park Sinking Fund.....	6,000 00	
Water Loan Sinking Fund.....	16,000 00	
Sinking Fund for High Service Water Supply.....	1,800 00	
		$2,866,830 20
The balance in the Treasury, Jan. 1, 1896, was	$ 85,017 01	
The amount received into the Treasury during the year 1896, was	2,982,011 87	
Making a total of.....	$3,067,028 88	
The amount ordered to be paid from the Treasury during the year 1896, was.....	$2,866,830 20	
The balance in the Treasury, Dec. 31, 1896, was.....		$ 200,198 68

CITY DEBT.

Ordinary City Debt Jan. 1, 1896..	$2,387,030 29	
Borrowed during the year 1896..	414,000 00	
Total.....	$2,801,030 29	
Paid during the year 1896.....	220,690 00	
Total Ordinary Debt Dec. 31, 1896		$2,580,340 29
Amount of Water Debt, Jan. 1, 1896.....	$1,301,000 00	
Paid during the year 1896.....	26,000 00	
Total Water Debt, Dec. 31, 1896..		$1,275,000 00
Total permanent debt of the City, Dec. 31, 1896.....		$3,855,340 29
Amount due on Temporary Loans		$ 175,000 00
Ordinary City Debt, Dec. 31, 1896	$2,580,340 29	
Amount of Sinking Fund for the payment of the same Dec. 31, 1896.....	194,587 86	
Net Ordinary City Debt, Dec. 31, 1896.....		$2,385,752 43
Water Debt, Dec. 31, 1896.....	$1,275,000 00	
Amount of Sinking Funds for the payment of the same Dec. 31, 1896.....	196,690 90	
Net Water Debt, Dec. 31, 1896...		$1,078,309 10
Total Net Debt of the City, Dec. 31, 1896.....		$3,464,061 53
Total Net Debt of the City, Dec. 31, 1895.....		$3,107,998 80
Increase in the Net City Debt during the year 1896.....		$ 356,062 73

LIMIT OF INDEBTEDNESS FOR 1896.

Total Debt of the City, Dec. 31, 1896		$3,855,340 29
Deduct Water Loans	$1,275,000 00	
Deduct amount exempted by Legislature	820,000 00	
Deduct Sinking Funds	102,922 31	
		$2,197,922 31
City Debt as it relates to the limit of indebtedness		$1,657,417 98
Limit of indebtedness for 1897		$1,723,785 70
City Debt which applies to limit.		$1,657,417 98
Distance from Limit, Jan. 1, 1897		$ 66,387 72

LOANS, 1896.

Sewers	$ 75,000 00
Paving	25,000 00
Lowell Textile School	25,000 00
New School Houses	200,000 00
Paupers (Improvements at City Farm)	19,000 00
Grade Crossings	20,000 00
Schools	30,000 00
Police	10,000 00
Fire Department	5,000 00
Lighting	5,000 00
	$ 414,000 00

APPROPRIATIONS, 1896.

Schools	$ 210,000 00
School Houses	32,000 00
Public Buildings	15,000 00
Streets	100,000 00
Sewers	20,000 00
City Cemeteries	2,000 00
Commons	10,000 00
Amount carried forward	$ 389,000 00

Amount brought forward.....	$ 389,000 00
Paupers.....	65,000 00
Police.....	95,000 00
Fire Department.....	115,000 00
Lighting.....	70,000 00
Printing and Advertising.....	5,000 00
Library.....	10,000 00
Health.....	35,000 00
Salaries.....	30,000 00
Military Aid.....	3,000 00
Soldiers Relief.....	4,000 00
Interest.....	85,000 00
National Bank Tax.....	14,941 02
State Tax.....	53,914 29
County Tax.....	70,288 17
Abatement of Taxes.....	29,794 62
City Hall and Memorial Building Sinking Fund	7,500 00
High School Sinking Fund.....	3,000 00
Intercepting Sewed Fund.....	5,000 00
Extension Rogers Fort Hill Park Sinking Fund	6,000 00
Water Loan Sunking Fund.....	16,000 00
Sinking Fund for High Service Water Supply	1,800 00
	$1,114,238 10

Respectfully submitted,

DAVID CHASE,

Auditor of Accounts.

Appropriations and Expenditures.

The Amount of the Several Appropriations made by the City Council During the Year — The Amount of the Unexpended Balance of 1895—The Transfers from one Appropriation to Another—The Amount Received into the Treasury from all Sources—The Expenditures in Detail, under each Appropriation, and the Undrawn Balances December 31, 1896—Also, the Amount of the City Debt — Debts Due the City — Schedules of the Value of Real and Personal Property, etc.

SCHOOLS.

Appropriation...	$ 210,000 00	
		$ 210,000 00

RECEIPTS.

From A. K. Whitcomb, tuition of sundry persons.....	$ 2,602 08	
A. K. Whitcomb, for overpayment to Miss Lockhart.....	12 50	
Town of Dracut, tuition of sundry persons.....	220 00	
M. J. Callahan, overdraft.....	15 00	
L. E. Mott Apparatus Co., overdraft.....	14 18	
E. L. Kellogg & Co., overdraft	90	
M. Steinert & Co., overdraft..	175 00	
E. H. Rollins & Son, on loan..	30,000 00	
		$ 33,039 66
		$ 243,039 66
Transferred from Corporation Tax.....		25,000 00
		$ 268,039 66

EXPENDITURES.

Paid Superintendent:		
To A. K. Whitcomb, salary.....	$ 3,000 00	
		$ 3,000 00
Amount carried forward.....		$ 3,000 00

Amount brought forward.....		$ 3,000 00
Paid Truant Officers.....	$ 3,014 42	
		$ 3,014 42
Paid for Services of Teachers:		
In High School.....	$ 20,391 50	
Manual Training School.....	1,030 00	
Grammar Schools.....	69,832 87	
Primary Schools.....	65,489 16	
Training School.....	9,256 09	
Kindergarten Schools.....	9,514 25	
Penmanship.....	2,021 00	
Drawing.....	1,250 00	
Music.....	1,219 25	
Sewing.....	785 00	
Military.....	250 00	
		$ 181,039 12
Paid for Services of Janitor in Manual Training School.....	$ 49 00	
		$ 49 00
Paid for Services of Janitor in Kindergarten Schools.....	$ 232 50	
		$ 232 50
Paid for Services of Clerks.....	$ 198 50	
		$ 198 50
Paid for BOOKS :		
To Allyn & Bacon.....	$ 16 40	
American Book Co.....	1,338 76	
D. Appleton & Co.....	239 67	
Edward E. Babb & Co.....	589 47	
C. W. Barden.....	4 51	
Boston School Supply Co....	551 63	
T. H. Castor & Co.....	125 29	
Damrell & Upham.....	4 50	
Educational Publishing Co...	93 76	
Emerson College of Oratory..	17 50	
Flood & Vincent.....	1 20	
Amounts carried forward.....	$ 2,982 69	$ 187,533 54

Amounts brought forward	$ 2,982 69	$ 187,533 54
Paid for BOOKS :		
To Ginn & Company.....	1,537 46	
Harper & Bros'.....	244 65	
D. C. Heath & Co.....	181 41	
Henry Holt & Co.....	19 13	
Houghton, Mifflin & Co.....	237 57	
E. L. Kellogg & Co.....	27 97	
King-Richardson Publishing Co.....	658 63	
Leach, Shewell & Sanborn....	563 64	
Lee & Shepard.....	81 75	
Longmans, Green & Co.....	107 80	
Maynard, Merrill & Co.....	61 84	
Public School Publishing Co.	1 45	
Rand, McNally & Co.....	83 60	
Roberts Bros'.....	50	
The MacMillan Co.....	39 38	
A. T. Thompson & Co.....	16 00	
Thompson, Brown & Co.....	318 50	
William Ware & Co.....	1,375 91	
Werner School Book Co.....	136 18	
Bradlee Whidden.....	1 60	
John Wiley & Sons.....	87	
		$ 8,678 53
Paid for BLANK BOOKS, STATIONERY, PRINTING, Etc.		
To A. R. Andrews.....	$ 61 75	
Edward E. Babb & Co.....	1,137 32	
M. L. Bassett & Co.....	7 00	
Charles H. Belanger.....	5 98	
Boston School Supply Co.....	236 40	
Boston Bank Note and Lithograph Co.....	70 00	
E. A. Burgess.....	8 00	
F. U. Cambridge.....	69 46	
Dumas & Co.....	890 14	
Eagle Pencil Co.....	192 25	
Nelson W. Earle & Co.....	28 80	
Amounts carried forward.....	$ 2,707 10	$ 196,212 07

Amounts brought forward.....	$ 2,707 10	$ 196,212 07
To Franklin Publishing Co.....	10 00	
Eberhard Faber.....	6 30	
E. P. Gerald & Co.....	3 50	
C. F. Hatch & Co.....	5 20	
Holden Patent Book Cover Co	70 37	
Winthrop B. Jones.....	9 00	
George F. King & Merrill....	48 00	
Keuffell & Esser Co.....	50 00	
Thomas H. Lawler.....	333 10	
Manchester Ink Co.....	36 05	
Morse Company.....	2 71	
Alfred Mudge & Son.....	35 00	
New England Publishing Co..	2 50	
Prang Educational Co.....	1 26	
G. C. Prince & Son.....	835 91	
James J. Shannon.....	8 15	
A. Storrs & Bement Co.....	159 90	
Tilton & Co.....	1 20	
G. W. Trull.....	6 71	
W. R. Warren.....	10 00	
John Barnes.....	5 00	
Buckland Printing Co.....	24 25	
Butterfield Printing and Binding Co.....	12 50	
Campbell & Hanscom.....	105 36	
Courier Citizen Co.....	389 89	
Daily News Company.....	16 14	
H. F. Glidden.....	5 15	
Lowell Daily Sun.....	702 38	
Lowell Herald Publishing Co.	6 50	
Morning Mail Corporation...	137 48	
Thompson & Hill.....	58 50	
		$ 5,805 11
Paid for **FUEL** :		
To Appropriations for Roads and Bridges, for labor on coal..	132 72	
Appropriations for Paupers, for wood.....	658 73	
D. W. Horne & Son, for coal..	14,650 11	
Wm. E. Livingston, for coal...	22 65	
Amounts carried forward.....	$ 15,464 21	$ 202,017 18

Amounts brought forward.....	$ 15,464 21		$ 202,017 18	
To Rourke & Sullivan, for coal..	45 94			
E. A. Wilson, Agent, for coal.	359 55			
			$ 15,869 70	
Paid for SUNDRIES :				
To Appropriation for School Houses, for labor and material.....	$ 1,630 00			
Appropriations for Police for services of officers.....	6 88			
Appropriations for Water Works, for water.....	1,769 20			
Appropriation for Water Works, for Meter, Connections, etc.....	29 26			
Lowell Electric Light Corporation, for power.....	235 32			
Lowell Electric Light Corporation, for lights.....	2 64			
Lowell Gas Light Co., for gas.	313 20			
Lowell Gas Light Co., for meter connections.....	2 00			
N. E. Telephone and Telegraph Co., for services.....	171 85			
Howe Lumber Co., for lumber	19 04			
Pratt & Forrest, for lumber...	143 70			
Amasa Pratt & Co., for lumber	9 48			
Charles E. Adams, for hardware.....	4 38			
W. T. S. Bartlett, for ash cans, chisels, brooms, etc.....	138 70			
Henry C. Girard, for hardware, tools, etc.....	42 76			
Thompson Hardware Co, for hardware, tools, supplies for Manual Training School....	313 28			
A. H. Abbott, for blacksmithing.....	5 60			
H. R. Barker Manufacturing Co., for mantels, labor, etc..	37 94			
John Callaghan, for labor....	50			
Amounts carried forward.....	$ 4,875 73		$ 217,886 88	

Amounts brought forward.....	$ 4,875 73	$ 217,886 88
To Derby & Morse, for material, labor of electricians, etc....	113 01	
Farrell & Conaton, for tapers.	3 00	
Henry F. Harding, for repairing electric bells, etc.....	55 10	
L. E. Knott Apparatus Co., for laboratory supplies.....	256 10	
A. I. Laughton, for repairing stoves, lining umbrella stand, labor, etc.....	133 73	
D. Lovejoy & Son, for grinding trimming knife.....	1 00	
W. A. Mack & Co., for balls for flag pole, drinking cups, ash cans, etc.....	208 93	
James F. McElholm, for labor.	1 20	
C. H. McGraw, for labor.....	50	
O. A. Richardson Sons, for keys, repairing wheel, and pencil sharpener, etc.....	28 80	
J. W. Seeton, for blacksmithing.....	1 00	
J. W. Stewart, for fittings and labor	32 57	
Weir Electric Co., for sal-ammoniac, zincs, labor, etc....	15 29	
Samuel Young, for batteries. labor, etc.....	2 90	
C. Zimmer, for shot, repairing guns, etc.....	26 30	
F. & E. Bailey & Co., for vaccine points.....	1 40	
P. P. Caproni & Bro., for plaster.....	1 25	
Carleton & Hovey, for chemicals, filters, corks, etc.....	93 31	
Cheever & Russell, for sugar barrels.....	60	
L. D. Churchill, for oil.....	20	
S. W. Churchill, for soap.....	55	
Amounts carried forward.....	$ 5,852 47	$ 217,886 88

Amounts brought forward.....	$ 5,852 47	$ 217,886 88
To C. B. Coburn & Co., for lanterns, globes, sponges, mats twine, etc.....	302 57	
Eagle Chemical Co., for powder.....	12 50	
Ellingwood & Co., for cans, acid, napthol, etc.....	88 43	
Franklin Educational Co., for laboratory material.....	32 30	
Austin Keith, for chloride....	2 50	
Lowell Chemical Co., for mucilage	18 00	
Miller Bros., for oil.....	24	
Simpson & Rowland, for soap	4 00	
Talbot Dyewood and Chemical Co., for acids, ammonia, distilled water, etc.....	43 24	
Wadsworth Howland & Co., for brushes.....	5 00	
Whitall, Tatum & Co., for assorted reagents.....	6 37	
Adams & Co., for furniture....	370 47	
Charles A. Austin & Co., for dusters	10 80	
Edward E. Babb & Co., for Kindergarten supplies.....	61 80	
Patrick Brady, for rescating chairs	9 75	
John J. Cluin, for repairing clocks, etc.....	28 50	
John Cross, for repairing flag	3 00	
Gardner Bros., for repairing chairs	10 50	
W. G. Hallock, for brushes...	93 65	
J. L. Hammett & Co., for Kindergarten supplies.....	687 56	
Charles T. Haskell, for repairing clocks.....	6 25	
Edward E. Howell, for lantern slides	23 50	
Jordan & Christie, for dusters, brushes, etc.....	45 00	
Amounts carried forward.....	$ 7,718 40	$ 217,886 88

Amounts brought forward.....	$ 7,718 40	$ 217,886 88
To Rose A. Jordan, for ribbon....	20 43	
A. L. Kittredge & Co., for shades, fixtures, pulleys, labor, etc.	148 82	
Lowell Steam Carpet Cleaning Works, for cleaning carpet.	6 00	
Lowell House Furnishing Co., for Manual Training School supplies.	23 36	
John McAskie, for use of tents	18 00	
McNabb Bros., for laundering	1 64	
H. C. McOsker, for cloth brackets, pictures, labor, etc.....	10 12	
C. I. W. Maynard Co., for ribbon.....	1 44	
Mower & Sparks, for repairing clock.....	1 00	
O'Donnell & Gilbride, for sewing school supplies.....	55 29	
George S. Perry & Co., for ink, furniture, etc.....	110 46	
A. G. Pollard & Co., for cambric, flannels, thread, etc....	97 12	
J. F. Puffer & Sons, for chairs	11 50	
Harry Raynes, for medals, clocks and repairing clocks.	46 00	
W. H. Spaulding & Co., for paper.....	1 25	
James Stanley, for repairing clocks.....	8 00	
A. T. Thompson & Co., for slide, boxes, etc.....	2 00	
J. M. Washburn, for hose, matting, tips, etc.....	39 55	
Henry Dufresne, for drums, repairing drums, etc.....	55 55	
Irvin J. Foote, for care of pianos.....	98 00	
Edwin J. Benner, for piano and stool.....	135 00	
Amounts carried forward.....	$ 8,608 93	$ 217,886 88

Amounts brought forward.....	$ 8,608 93	$ 217,886 88
To George A. Gardner, for drums, flutes, and sticks.....	21 45	
J. A. Greene, for piano and cover.....	250 00	
R. McDaniels, for arranging music.....	12 00	
Wm. Read & Sons, for swords and belts.....	39 00	
M. Steinert & Sons Co., for pianos, stools, cover, and repairing.....	776 00	
A. K. Whitcomb, for office expenses.....	107 35	
John F. Williams, for postage, railroad tickets, etc.....	144 50	
F. F. Coburn, for postage and clerk hire.....	17 75	
Mrs. W. E. Adams, for services as matron Highland School.....	82 50	
Alice F. Seeton, for services as monitor, Pawtucket School.	22 50	
Edith A. Andrews, for playing piano at drill.....	2 00	
Edith M. Clark, teaching music in Primary Schools.....	60 00	
Mary L. Cook, for paper, crayons, and services at Kinder garten Schools.....	74 01	
Lena Fisher, for services and expenses.....	11 20	
G. Stanley Hall, for Lecture..	50 00	
A. L. Page, for Lecture.....	22 25	
Hattie A. Pike, for instructions to Normal Kindergarten class.....	81 45	
E. Belle Perham, for services in clay modelling.....	20 00	
Emilie Paulson, for instructions to Normal Kindergarten class.....	31 25	
Amounts carried forward.....	$ 10,434 14	$ 217,886 88

Amounts brought forward.....	$ 10,434 14	$ 217,886 88
To Solon W. Stevens, for Lecture	25 00	
Kate Gannett Wells, for Lecture.....	14 00	
Adela P. Weitz, for Lecture..	50 00	
Lucy Wheelock, for services...	10 00	
Sarah E. Wiltse, for Lecture..	13 00	
Florila Bean, for services in Superintendent's office.....	29 50	
John H. Condon, for services.	2 00	
Ethel Dow, for playing piano for Kindergarten.....	25 00	
Alexander Grieg, Jr, for cash paid judges, at Field Day...	12 00	
Wm. A. Johnson, for professional services.....	6 00	
Michael J. Lynch, for services.	3 00	
Arthur Q. Phelan, for services as Quartermaster.....	50 00	
G. E. Caisse, for services as Interpreter.....	4 00	
Eugene Meyrand, for services. as Interpreter.....	25 00	
W. O. Blake, census enumerator.....	39 80	
F. P. Coggeshall, census enumerator.....	87 90	
Andrew A. Gray, census enumerator.....	77 90	
John A. Herrick, census enumerator.....	74 95	
Thomas F. Maguire, census enumerator.....	125 35	
Edward J. Rigney, census enumerator.....	63 45	
Wm. F. Shaw, census enumerator.....	62 35	
F. N. Tilton, census enumerator.....	89 70	
Charles S. Young, census enumerator.....	60 05	
Amounts carried forward	$ 11,384 09	$ 217,886 88

Amounts brought forward.....	$ 11,384 09	$ 217,886 88
To American Orchestra, for services.....	107 00	
Post 42 Military Band.....	50 00	
C. O'Neil, for use of piano....	5 00	
R. A. Griffiths, for bouquets and decorations.....	66 50	
D. L. Page Company, for refreshments.....	15 00	
S. N. Patterson, for decorations.....	35 00	
Thomas M. Graves, for engrossing resolutions and commissions.....	35 90	
Middlesex County Truant School, for support of truants.....	3,704 27	
P. F. Brady, for rent.....	48 00	
Chelmsford Street Free Baptist Society, for rent.....	160 00	
Heirs C. B. Coburn, for rent..	60 58	
Heirs of C. B. Coburn, water	2 14	
Highland Congregational Church, for rent.....	400 00	
Middlesex Mechanics Association, for rent.....	315 00	
Percy Parker, for rent and water.....	627 00	
Pawtucket Congregational society for rent.....	140 00	
Proprietors Odd Fellows' Halls, for rent.....	416 63	
J. F. Puffer, for rent.....	212 50	
George F. Stiles, for rent of Mechanics Hall.....	35 00	
Phineas Whiting, for rent....	300 00	
Amesbury Carriage Co., for wagon.....	125 00	
T. M. Bolton, for repairing harneses.....	2 50	
A. H. Cluer, for robe, whip, umbrella, etc.....	29 10	
Amounts carried forward.....	$ 18,276 21	$ 217,886 88

Amounts brought forward.....	$ 18,276 21	$ 217,886 88
To M. V. B. Libby, for shoeing horses.....	45 50	
Henry Reynolds, for shoeing horses.....	6 65	
Sawyer Carriage Co., for repairing carriages.....	23 44	
Thomas F. Fay, for cleaning vaults.....	42 00	
Fred A. Fox, for cleaning vaults.....	24 00	
J. A. Gregoire, for repairing carriage.....	12 00	
R. W. Hunt, for carriage hire.	74 40	
P. E. McNulty, for carriage hire.....	4 50	
J. H. Sparks, for carriage hire and board of horses.....	543 48	
Sundry persons for TEAMING, as follows :		
To A. O. Coburn.....	2 00	
Frank Dunlap.....	2 45	
Dunlap and Parkin.....	7 40	
Edward Judge.....	3 50	
Timothy Kelly.....	3 00	
D. P. Knowlton.....	2 50	
Frank S. Ladd.....	27 00	
James Leach.....	1 50	
T. G. Little.....	3 00	
D. F. Lyons.....	4 00	
J. W. MacDonald.....	8 00	
John Richards.....	1 50	
Wm. Roberts.....	25 00	
G. E. Stanley.....	38 30	
John Whitely.....	1 00	
American Express Co., for transportation	51 95	
Manchester and Concord, N. H. Express Co., for transportation.....	21 15	
Amounts carried forward.....	$ 19,255 43	$ 217,886 88

Amounts brought forward.....	$ 19,255 43	$ 217,886 88
To New York and Boston Despatch Express Co., for transportation.....	9 45	
Post Gardner Express Co., for transportation.....	7 80	
Boston and Maine Railroad, for transportation.....	16 85	
		$ 19,289 53

EVENING SCHOOLS.

Paid for SUNDRIES:

To Sundry persons, for services as Teachers.....	$ 16,369 00	
Sundry persons, for services as Janitors.....	1,825 00	
Anthony A. Conway, for expenses and salary as Supervisor.....	96 04	
Appropriation for School Houses, for labor and material	22 37	
Lowell Electric Light Corporations, for lights.....	146 26	
Lowell Gas Light Co., for gas	1,512 95	
John Barnes, for postal cards and printing.....	4 50	
Buckland Printing Co., for printing	4 00	
Campbell & Hanscom, for postals and printing.....	9 50	
Courier-Citizen Co., for printing and advertising.....	18 75	
Morning Mail Corporation, for printing and advertising....	13 75	
Thompson & Hill, for printing	14 50	
American Orchestra, for services	24 00	
R. A. Griffiths, for flowers....	20 00	
Merrimac House, for posting	1 50	
Amounts carried forward.....	$ 20,082 12	$ 237,176 41

Amounts brought forward.....	$ 20,082 12	$ 237,176 41
To Drury & Green, for lantern and labor.....	10 00	
Thompson Hardware Co., for hardware	1 35	
Fay Bros. & Hosford, for posting	2 90	
		$ 20,096 37

DRAWING SCHOOLS.

Paid for SUNDRIES:

To Sundry persons, for services as Teachers.....	$ 3,770 00	
Sundry persons, for services as Janitors.....	84 00	
Appropriation for School Houses, for labor and material	220 35	
Lowell Electric Light Corp., for lights.....	127 96	
Lowell Gas Light Co., for gas	108 45	
Mary E. Cushing, for studies..	1 38	
Abby F. Davis, for postal cards and working clay.....	9 00	
P. P. Caproni & Bro., for studies, models and plaster.....	18 20	
Montague Marks, for subscription	4 00	
W. H. Spaulding & Co., for alcohol, shellac, etc.....	14 48	
Courier-Citizen Co., for printing	1 75	
C. B. Coburn & Co., for alcohol	1 35	
C. F. Hatch & Co., for paper..	1 00	
Thompson Hardware Co., for brushes	18	
Wm. E. Livingston, for plaster	2 25	
		$ 4,364 35
		$ 261,637 13

Total Expenditure for the year 1896.	$261,637 13
Transferred to Appropriation for Roads and Bridges.....	3,000 00
	$264,637 13
Balance undrawn Dec. 31, 1896..	3,402 53
	$268,039 66

SCHOOL-HOUSES.

Balance undrawn, Jan. 1, 1896...	$ 127 76	
Appropriation.	32,000 00	
		$ 32,127 76

RECEIPTS.

From Appropriation for Schools, for labor and material.....	$ 1,872 72	
Appropriation for Addition to Lincoln School House, for labor and material.....	481 91	
Appropriation for Addition to Plain Street School House, for labor and material.....	378 41	
Appropriation for Addition to Varnum School House.....	22 65	
Appropriation for Bartlett School House, for labor and material	306 40	
Appropriation for Carter Street School House, for labor and material	204 19	
Appropriation for Lexington Avenue School House, for labor and material.....	23 72	
Appropriation for Pine Street School House, for labor and material	383 89	
Reserved Fund, for labor and material	27 60	
Charles F. Varnum, for old material	5 50	
		$ 3,706 99
Amount carried forward.....		$ 35,834 75

Amount brought forward.....		$ 35,834 75

TRANSFERS.

From Appropriation for New School Houses.....	$ 5,000 00	
From Appropriation for Public Buildings	3,000 00	
		$ 8,000 00
		$ 43,834 75

EXPENDITURES.

Paid for LUMBER, HARDWARE, ETC.:		
To A. P. Bateman.....	$ 25 54	
A. L. Brooks & Co.....	1 44	
Burnham and Davis.....	169 22	
S. W. Fletcher.....	10 00	
Howe Lumber Co.....	139 46	
J. H. Huntley.....	6 00	
Amasa Pratt & Co.....	157 91	
Pratt & Forrest.....	38 11	
American Bolt Co.....	2 00	
Charles E. Adams.....	31 39	
W. T. S. Bartlett.....	41 66	
F. W. Cheney & Co.....	4 56	
Henry C. Girard.....	93 56	
Thompson Hardware Co.....	15 91	
F. D. Weld.....	12 00	
		$ 748 76
Paid for SUNDRIES:		
To Sundry persons, for services as Janitors	$ 20,917 32	
Sundry persons, for labor....	8,322 44	
Appropriation for Watering Streets, for assessments....	173 07	
Appropriation for Water Works, for water.....	4 00	
A. H. Abbott, for blacksmithing	5 75	
Amounts carried forward....	$ 29,422 58	$ 748 76

Amounts brought forward.....	$ 29,422 58	$ 748 76
To O. E. Averill, for blacksmithing	15 76	
H. R. Barker Manufacturing Co., for pipe, fittings and labor	129 51	
Challenge Tube Cleaner Co., for tube cleaners.....	3 00	
Chelmsford Foundry Co., for castings	2 50	
Derby & Morse, for repairing bells	2 45	
Drury & Green, for pipe, fittings and labor.....	62 73	
Farrell & Conaton, for pipe, fittings and labor.....	37 52	
Alonzo Hall, for tube cleaner	3 75	
S. H. Jones, for pipe, fittings, labor and plumbing London School	1,826 41	
Joel Knapp & Son, for bolts and washers.....	2 67	
A. Ivan Laughton, for tin, solder, labor, etc.....	6 65	
Alvin Lawrence, for repairing clock	4 00	
D. Lovejoy & Son, for labor...	1 00	
Lowell Heating and Plumbing Co., for pipe, fittings and labor	100 15	
Lowell Steam Boiler Works, for inspecting and repairing boilers	955 12	
W. A. Mack & Co., for iron, solder, labor, etc.....	184 68	
Middlesex Machine Co., for labor.....	4 50	
G. B. Roche, for pipe, fittings and labor.....	14 80	
Rice & Company, for wire work.....	4 44	
Scannell and Wholey, for tube brush	3 00	
Amounts carried forward.....	$ 32,787 22	$ 748 76

Amounts brought forward.....	$ 32,787 22		$ 748 76	
To Wm. J. Scott, for pipe, fittings and labor.....	98 78			
Scott & O'Day, for pipe, fittings, labor, etc.....	26 25			
Union Iron Foundry Co., for castings	1 40			
D. H. Wilson & Co., for tank, bracket, pipe, cement, labor, etc.....	378 18			
H. H. Wilder & Co., for valves, packing, labor, etc.....	8 50			
Wolloston Foundry Co., for castings	8 89			
Brooklyn Varnish Manufacturing Co., for enamel black	66 25			
C. B. Coburn & Co., for paint, oil, alcohol, etc.....	166 74			
Cheever & Russell, for oil....	1 56			
Hartwell & Co., for oil.....	12			
A. L. Ready & Sons, for rags..	2 70			
B. J. Richardson, for kyanize	81 00			
Arthur H. Slater, for oil.....	9 20			
Francis Brown, for filling....	22 10			
S. D. Butterworth, for mason work and material.....	193 97			
Coburn & Crosby, for mason work and material.....	174 47			
Philip P. Conners, for cement	1 25			
Philip Ginty, for slate, zinc and labor.....	333 51			
Robert Goulding & Son, for slate, zinc and labor.....	13 88			
Wm. E. Livingston, for lime, cement, etc.....	35 90			
D. M. Prescott, for mason work and material.....	916 81			
Samuel E. Snow, for mason work and material.....	1,238 52			
E. A. and A. T. Smith, for concrete.....	12 60			
Staples Bros., for pipe, bends, traps, etc.....	9 44			
J. H. Walker, for mason work and material.....	537 20			
Amounts carried forward.....	$ 37,126 44		$ 748 76	

Amounts brought forward.....	$ 37,126 44		$	748 76
To Chandler Adjustable Chair and Desk Co., for blackboards and desks.....	304 96			
John Cross, for splicing rope	2 00			
Thomas H. Elliott, for rent of land.....	50 00			
Lowell Wall Paper Co., for paper, hanging and moulding.....	47 07			
O'Donnell & Gilbride, for felting bunting, cheese cloth, etc	48 08			
Proprietors of Locks and Canals, for 10,000 sq. ft. of land on Cheever and Tucker Streets.....	4,000 00			
Proprietors of Locks and Canals, for rent of land....	1 00			
Boston Herald Co., for advertising.....	2 38			
Courier-Citizen Co., for printing and advertising.....	6 00			
Daily News Co., for advertising.....	2 25			
Morning Mail Co., for advertising.....	3 75			
F. Blanche Hard, for typewriting.....	76			
F. B. Hill & Co., for repairing wagon.....	62 50			
P. H. Heelon, for board of horses.....	20 00			
J. E. Conant & Co., for board of horses.....	452 12			
Charles F. Kidder, for travelling expenses, postage, etc..	29 15			
Charles F. Varnum, for travelling expenses.....	4 20			
Richardson's Hotel, for refreshments.....	20 00			
Murphy & Bingham, for carriage hire and board of horse.....	49 20			
C. W. Braley, for teaming....	2 00			
Thomas Casey, for teaming...	2 00			
Amounts carried forward.....	$ 42,235 86		$	748 76

Amounts brought forward.....	$ 42,235 86		$ 748 76	
To Thomas Little, for teaming.	12 50			
Wm. Roberts, for teaming...	15 50			
American Express Co., for transportation.	1 85			
Boston and Maine Railroad, for transportation.....	3 76			
N. Y., N. H. and H. R. R. Co., for transportation.....	7 47			
			$ 42,276 94	
Total Expenditure for the year 1896.....			$43,025 70	
Balance undrawn Dec. 31, 1896..			809 05	
			$43,834 75	

NEW SCHOOL HOUSES.

Balance undrawn, Jan. 1, 1896	$ 66,027 50	
		$ 66,027 50

RECEIPTS.

From E. C. Stanwood & Co., on loan.	$ 100,000 00	
R. L. Day & Co., on loan	$ 100,000 00	
		$ 200,000 00
		$266,027 50

TRANSFERS.

To Appropriations for School Houses.	$ 5,000 00	
Appropriations for Bartlett School House	98,000 00	
Appropriations for Carter Street School House	23,527 50	
Appropriations for Additions to Plain Street School House	17,000 00	
Appropriations for Additions to Lincoln School House	20,000 00	
Appropriations for Additions to Varnum School House	25,000 00	
Appropriations for Lexington Avenue School House	6,500 00	
Appropriations for Pine Street School House	20,000 00	
		$ 215,027 50
Balance undrawn Dec. 31, 1896		51,000 00
		$266,027 50

LOWELL TEXTILE SCHOOL.

Received from E. H. Rollins & Sons, on Loan.....	$ 25,000 00	$ 25,000 00
Paid Trustees Lowell Textile School per Resolution of City Council.....	$ 25,000 00	$ 25,000 00

ADDITION TO PLAIN STREET SCHOOL HOUSE.

Transferred from Appropriation for New School Houses.....	$ 17,000 00	
		$ 17,000 00

EXPENDITURES.

Paid for SUNDRIES:

To Sundry persons, for labor....	$ 4,119 00	
Appropriation for School Houses, for labor and material.....	378 41	
Appropriation for Roads and Bridges, for teaming and labor.....	3 75	
Appropriation for Sewers and Drains, for privilege of entering Chelmsford Street Sewer.....	81 20	
Appropriation for Water Works, for service pipe and water.....	24 67	
Millard F. Davis and Harry C. Raynes, for plans and specifications.....	481 53	
James Burns, for slating.....	512 67	
Patrick Conlan, for brick work, etc.....	1,932 38	
Fuller and Warren Warming and Ventilating Co., for heating and ventilating apparatus.....	1,808 80	
Henry F. Harding, for electric bells.....	7 00	
Amount carried forward.....	$ 9,349 41	

Amount brought forward.....	$ 9,349 41	
To S. H. Jones, for gas piping....	60 00	
Edwin A. Simpson, for foundation.	847 00	
Edwin A. Simpson, for material and labor.....	85 85	
Walsh & Meers, for plastering (Contract).	1,120 00	
Walsh & Meers, for plastering (Extras).	124 50	
Burnham & Davis, for lumber	513 17	
A. P. Bateman, for lumber...	145 90	
J. D. Carter & Co., for carved letters.	9 00	
Howe Lumber Co., for lumber	803 48	
Holmes & Bray, for mouldings, columns, etc.....	27 50	
Wm. H. Kimball, for lumber and labor.....	16 01	
Amasa Pratt & Co., for lumber.	1,197 11	
Pratt & Forrest, for lumber..	292 05	
Sturtevant & Galer, for brackets, drops, panels, mouldings, etc.....	78 13	
Charles E. Adams, for hardware, brushes, etc.....	50 57	
W. T. S. Bartlett, for hardware	14 15	
Boutwell Bros., for iron, beams, bars, etc.....	90 72	
F. W. Cheney & Co., for tin and lead.....	5 97	
Henry C. Girard, for hardware	172 58	
Drury & Green, for pipe, fittings and labor.....	746 98	
Charles E. Gee, for castings and labor.....	125 12	
Joel Knapp & Son, for making bands.	4 00	
D. Lovejoy & Son, for forgings.	3 60	
D. H. Wilson & Co., for soil pipe.	1 50	
C. B. Coburn & Co., for lead..	15 75	
Wm. E. Livingston, for cement	2 50	
Amount carried forward.....	$ 15,902 55	

Amount brought forward.....	$ 15,902 55	
To Staples Bros., for drain pipe...	28 60	
E. A. and A. T. Smith, for concrete.....	310 10	
Courier-Citizen Co., for advertising.....	9 75	
F. Blanche Hard, for typewriting.....	3 17	
George L. Fowler, for moving building.....	115 00	
Wm. Roberts, for teaming....	13 00	
Total Expenditure for the year 1896.....		*16,382 17
Balance undrawn Dec. 31, 1896..		617 83
		$17,000 00

*Unfinished.

BARTLETT SCHOOL HOUSE.

Transferred from Appropriation for New School Houses....	$ 98,000 00	
		$ 98,000 00

EXPENDITURES.

Paid for SUNDRIES:

To Appropriation for School Houses, for labor.....	$ 306 40	
Walter Coburn, for 16,824 sq. ft. of land, @ 25c. per sq. ft.	4,206 00	
Lois R. Frothingham, for 17,928 sq. ft. of land @ 25c. per sq. ft.....	4,482 00	
George F. Libby, for 16,773 sq. ft. of land @ 25c. per sq. ft.	4,193 25	
Heirs Alexander Wright, for 16,893 sq. ft. of land @ 25c. per sq. ft.....	4,223 25	
Stickney & Austin, on account of plans and specifications	2,184 35	
Cyrus Barton, for foundation (Contract).....	3,374 00	
Cyrus Barton, for material and labor.	2,903 51	
James Burns, for slating (Contract).	1,800 00	
Charles P. Conant, on account of Carpenter work, (Contract).	11,316 00	
Charles P. Conant, for labor and material.....	160 79	
D. Cushing & Co., for iron and steel work (Contract).....	7,000 00	
Amount carried forward.....	$ 46,149 55	

Amount brought forward.....	$ 46,149 55	
To D. Cushing & Co., for metal work and labor.....	150 00	
Farrell & Conaton, for plumbing (Contract).....	800 00	
Middlesex Machine Co., for Heating and Ventilating apparatus (Contract).....	1,500 00	
Patrick O'Hearn, for brick work (Contract).....	17,224 00	
Patrick O'Hearn, for brick work.....	135 46	
Walsh & Meers, for plastering (Contract).....	800 00	
Howe Lumber Co., for lumber	42 06	
Joel Knapp & Son, for iron beams.....	9 03	
C. B. Coburn & Co., for hemp halyards.....	2 24	
A. L. Kittredge & Co., for painting (Contract).....	200 00	
C. F. Kidder, for expenses of Clerk and Committee to Boston.....	7 40	
C. F. Varnum, for expenses of Committee.....	19 25	
F. Blanche Hard, for typewriting.....	84	
Campbell & Hanscom, for advertising.....	5 25	
Courier-Citizen Co., for advertising.....	9 00	
Lowell Daily Sun, for advertising.....	6 00	
Morning Mail Corp., for advertising.....	3 75	
Total Expenditure for the year 1896.....		*$ 67,063 83
Balance undrawn Dec. 31, 1896...		30,936 17
		$ 98,000 00

*Unfinished.

PINE STREET SCHOOL HOUSE

Transferred From Appropriation for New School Houses.....	$ 20,000 00	
Received from B. G. Brown, for use of water.....	4 37	
		$ 20,004 37

EXPENDITURES.

Paid for SUNDRIES:

To Appropriation for School Houses, for labor and material.....	$ 383 89
Appropriation for Water Works, for water, service, pipe, etc.....	23 62
Sundry persons, for labor....	120 37
J. W. Bennett, for 26,608 sq. ft. of land @ 20c. per sq. ft.	5,321 60
Harry Prescott Graves, for plans and specifications....	360 00
B. G. Brown, for foundation (Contract).....	1,300 00
B. G. Brown, for filling.....	192 55
John Sweatt, for brick work (Contract).....	1,390 00
John Sweatt, for brick work..	30 75
Wm. H. Wiggin, for carpenter work (Contract).....	3,300 00
Joel Knapp & Son, for iron work.....	30 58
Scott & O'Day, for plumbing (Contract).....	320 49
S. H. Jones, for gas piping....	46 50
Amount carried forward.....	$ 12,820 35

Amount brought forward.....	$ 12,820 35	
To James Burns, for slating (Contract).....	1,428 99	
Walsh & Meers, for plastering (Contract).....	973 00	
Fuller and Warren Warming and Ventilating Co., for heating and ventilating apparatus.....	1,404 00	
Howe Lumber Co., for lumber	8 53	
Holmes & Bray, for doors, sash and frames.....	275 20	
Staples Bros., for drain pipe..	11 48	
D. H. Wilson, for soil pipe..	1 50	
Charles E. Adams, for brushes	5 75	
C. B. Coburn & Co., for lead and varnish.....	52 95	
Courier-Citizen Co., for advertising.....	14 00	
Campbell & Hanscom, for advertising.....	3 38	
Lowell Daily Sun, for advertising.....	3 75	
Total Expenditure for the year 1896.....		*$ 17,002 88
Balance undrawn Dec. 31, 1896..		3,001 49
		$ 20,004 37

*Unfinished.

ADDITION TO LINCOLN SCHOOL HOUSE.

Transferred from Appropriation for New School Houses.....	$ 20,000 00	$ 20,000 00

EXPENDITURES.

Paid for SUNDRIES:

To Appropriation for School Houses, for labor and material.....	$ 481 91
Stickney & Austin, for plans and specifications.....	400 00
Chelmsford Foundry Co., for iron work.....	227 15
Patrick Conlan, for brick work (Contract).....	4,715 00
Patrick Conlon, for brick work	912 13
Fuller and Warren Warming and Ventilating Co., for heating and ventilating, apparatus.....	448 40
Fuller and Warren Warming and Ventilating Co., for cremating, sanitary apparatus	238 00
Wm. H. Fuller, for building retaining wall (Contract)...	2,344 00
William H. Fuller, for mason work.....	44 69
Robt. Goulding & Son, for slating (Contract).....	714 00
W. A. Mack & Co., for metal work (Contract).....	800 00
Scott & O'Day, for plumbing (Contract).....	280 00
Amount carried forward.....	$ 11,605 28

Amount brought forward.....	$ 11,605 28		
To Scott & O'Day, for labor on Fuller and Warren System	45 03		
Edwin A. Simpson, for foundation (Contract).....	942 00		
Edwin A. Simpson, for labor and material.....	129 00		
Walsh & Meers, for plastering (Contract).....	650 00		
Whittet & McDonald, for carpenter work (Contract).....	4,764 00		
Whittet & McDonald, for carpenter work.....	135 87		
Howe Lumber Co., for lumber	16 17		
Charles E. Adams, for brushes	2 50		
Boutwell Bros., for iron.....	108 67		
C. B. Coburn & Co., for lead and varnish.....	95 35		
Staples Bros., for drain pipe and stopples.....	56 00		
Campbell & Hanscom, for printing and advertising....	9 75		
Daily News Co., for advertising.....	5 63		
Total Expenditure for the year 1896.....		*$	18,565 25
Balance undrawn Dec. 31, 1896..			1,434 75
		$	20,000 00

*Unfinished.

CARTER STREET SCHOOL HOUSE.

Transferred from Appropriation for New School Houses.....$	23,527 50	
Received from B. G. Brown, for water.....	4 48	
		$ 23,531 98

EXPENDITURES.

Paid for SUNDRIES:

To Appropriation for School Houses, for labor and material..... $	204 19	
Appropriation for Water Works, for water, service pipe, etc.....	18 85	
Lowell Bleachery Co., for 6,477 sq. ft. of land on Carter Street @ 25c. per sq. ft.....	1,619 25	
Lowell Bleachery Co., for 3,736 sq. ft. of land on Carter Place @ 18c. per sq. ft.....	672 48	
Millard F. Davis & Harry C. Raynes, for plans and specifications.....	1,193 10	
C. F. Kidder, for expenses of Committee.....	5 20	
C. F. Varnum, for travelling expenses.....	5 50	
B. G. Brown, for foundation (Contract).....	1,000 00	
B. G. Brown, for labor and material.....	953 08	
Chelmsford Foundry Co., for iron work (Contract).....	500 00	
Amount carried forward..... $	6,171 65	

Amount brought forward.....	$ 6,171 65	
To Chelmsford Foundry Co., for iron work.....	139 11	
Patrick O'Hearn, for brick work (Contract).....	10,500 00	
Patrick O'Hearn, for brick work.....	33 00	
Wm. H. Wiggin, for carpenter work (Contract).....	3,700 00	
A. P. Bateman, for lumber....	6 80	
Holmes & Bray, for doors, sash, and frames.....	381 60	
Howe Lumber Co., for lumber	10 98	
C. B. Coburn & Co., for white lead.....	10 81	
Campbell & Hanscom, for advertising.....	6 00	
Courier-Citizen Co., for advertising and printing.....	13 75	
Daily News Co., for advertising.....	5 63	
Morning Mail Co., for advertising.....	25 70	
James Hickey, for moving building.....	195 00	
Boston and Maine Railroad, for transportation.....	25	
Total Expenditures for the year 1896.....		*$ 21,200 28
Balance undrawn Dec. 31, 1896..		2,331 70
		$ 23,531 98

*Unfinished

ADDITION TO VARNUM SCHOOL HOUSE.

Transferred from Appropriation for New School Houses.....	$ 25,000 00	
		$ 25,000 00

EXPENDITURES.

Paid for SUNDRIES:

To Appropriation for School Houses, for labor and material.....	$ 22 65	
Campbell & Hanscom, for advertising.....	6 50	
Courier-Citizen Co., for advertising.....	6 25	
Daily News Co., for advertising.....	5 31	
Lepine & Co., for advertising..	5 00	
Lowell Daily Sun, for advertising.....	5 62	
Morning Mail Corp., for advertising.....	8 59	
Total Expenditures for the year 1896.....		$ 59 92
Balance undrawn Dec. 31, 1896..		24,940 08
		$ 25,000 00

LEXINGTON AVENUE SCHOOL HOUSE.

Transferred from Appropriation for New School Houses.....	$ 6,500 00	
		$ 6,500 00

EXPENDITURES.

Paid for SUNDRIES:

To Appropriation for School Houses, for labor and material.....	$ 23 72	
Appropriation for Water Works, for service pipe and labor.....	19 12	
Sundry persons, for labor.....	703 76	
Merrill & Cutler, for plans and specifications.....	125 00	
Clarence G. Coburn, for 12,000 sq. ft. of land @ 6c. per sq. ft	720 00	
B. G. Brown, for foundation (Contract).....	570 00	
B. G. Brown, for labor and material.....	81 50	
James Burns, for slating (Contract).....	175 50	
Fuller and Warren Warming and Ventilating Co., for heating, ventilating and sanitary construction.....	548 00	
Limburg & Hands, for brick work (Contract).....	300 00	
Scott & O'Day, for plumbing..	91 55	
A. P. Bateman, for lumber....	94 75	
Burnham & Davis, for lumber	142 27	
A. W. Cheney, for lumber and pipe.....	26 85	
Davis & Sargent, for lumber..	75 00	
Amount carried forward.....	$ 3,697 02	

Amount brought forward.....	$ 3,697 02		
To Howe Lumber Co., for lumber	4 58		
Pratt & Forrest, for lumber...	324 80		
Wm. H. Wiggin, for lumber..	178 76		
Charles E. Adams, for hardware.....	5 21		
Henry C. Girard, for hardware	63 67		
Courier-Citizen Co., for advertising.....	5 00		
Daily News Co., for advertising.....	6 00		
Morning Mail Co., for advertising.....	3 75		
F. Blanche Hard, for typewriting.....	3 54		
Total Expenditure for the year 1896.....		*$	4,292 33
			2,207 67
Balance undrawn Dec. 31, 1896..		$	6,500 00

*Unfinished.

ROADS AND BRIDGES.

Appropriation.	$ 100,000 00	
		$ 100,000 00

RECEIPTS.

From The following Appropriations:		
Schools, for labor and material	$ 132 72	
Driven Well Plant, for paving blocks and labor.....	32 76	
Fire Department, for teaming coal.....	4 37	
Grade Crossings, for teaming, labor, sand, etc.....	7,114 90	
Police, for teaming coal.....	43 13	
Paving, for labor and material	517 00	
Plain Street School House, for labor.....	3 75	
Reserved Fund, for teaming coal, labor, etc.....	361 74	
Sewers and Drains, for services Superintendent of Streets.....	1,000 00	
Sewers and Drains, for services City Engineer.....	650 00	
Sewers and Drains, for keeping horses and teaming.....	1,308 20	
Watering Streets, for labor and material.....	1,061 60	
Water Works, for services of City Engineer and use of engine.....	450 00	
American Road Machine Co., for expressing.....	4 00	
Appleton Co., for broken stone	8 88	
Amounts carried forward.....	$ 12,693 05	$ 100,000 00

Amounts brought forward	$ 12,693 05	$ 100,000 00
From Frederick Ayer, for broken stone.	9 49	
Boutwell Bros., for scrap iron	36 92	
R. M. Boutwell, for broken stone.	7 82	
J. W. Bennett, for labor.....	46 37	
J. S. Brown, for manure.....	5 00	
J. B. Burns, for overdraft....	3 50	
B. G. Brown, for manure.....	64 50	
Robert E. Crowley, for edgestone, labor, teaming, etc..	19 79	
Cleveland J. Cheney, Jr., for sale of old material, edgestone, manure, etc.....	165 36	
Clarence G. Coburn broken stone.	12 48	
County of Middlesex, for manure and removing snow....	49 66	
H. G. Cushing, for manure....	20 00	
J. E. Conant & Co., for sale of nine horses and three carriages less expenses and commission.....	405 00	
Michael Corbett, for crushed stone.....	5 00	
J. L. Chalifoux, for stone.....	11 30	
E. W. Douglass, for labor.....	10 05	
Edward Faulkner, for edgestone and labor.....	16 83	
Charles Foye, for manure....	2 00	
William H. Harrigan, for manure.....	35 00	
C. I. Hood & Co., for broken stone and teaming.....	8 10	
E. S. Howe, for manure.....	14 00	
Pierre J. Hebert, for edgestone	80 68	
C. F. Kappler, for overdraft...	40	
Kitson Machine Co., for post..	5 00	
Wm. E. Livingston, for broken stone.....	4 44	
Fred Libby, for edgstone and labor.....	12 97	
Lowell Electric Light Corporation, for labor.....	4 62	
Amounts carried forward.....	$ 13,749 33	$ 100,000 00

Amounts brought forward.....	$ 13,749 33	$ 100,000 00
From Lowell & Suburban Street Railway Company, for crushed stone, plank, teaming, labor.....	510 56	
T. J. Lynch, for edgestone....	32 72	
E. H. Morse, for crushed stone	2 66	
N. Y., N. H. and H. R. R. Co., for overdraft.....	1 84	
George B. Palmer, for manure	2 00	
Proprietors of Locks and Canals, for labor and teaming.	8 00	
Joseph Plummer, for manure.	213 75	
R. H. Staples, for manure.....	34 00	
John Stedman, for edgestone and labor.....	75 10	
Mrs. L. R. Taylor, for edgestone and labor.....	35 25	
J. H. Travers, for trimming trees.....	5 25	
Town of Tyngsboro, for use of watering cart.....	6 00	
F. B. Trull, for manure.....	18 50	
T. J. Underwood, for manure.	18 00	
Thomas Varnum, for grass...	15 00	
Vincent Bros., for edgestone..	24 68	
Wamesit National Bank, for edgestone and labor.....	27 47	
Daniel Webster, for overdraft.	8 75	
White Bros. & Co., for edgestone and labor.....	36 87	
		$ 14,825 73

Received for SIDEWALK ASSESSMENTS:

A STREET.

From E. M. Bridge.....	$ 17 38	
C. F. Crosby.....	19 30	
George R. Choate.....	21 84	
Ellen F. Cummings.....	25 01	
D. Decell.....	18 91	
Laura A. Fuller.....	44 16	
Eddie L. Gray.....	19 20	
Amounts carried forward.....	$ 165 80	$ 114,825 73

Amounts brought forward.....	$ 165 80	$ 114,825 73
From Eddie L. Gray.....	25 44	
Loren Green.....	26 64	
Jeanette Lee.....	27 98	
AUBURN STREET.		
Michael Hunt.....	27 83	
BROADWAY.		
T. J. McDonald.....	43 74	
CROWLEY STREET.		
H. H. Aitken.....	25 50	
A. Stopherd.....	25 50	
EIGHTH AVENUE.		
D. F. Bean.....	29 00	
J. S. Brooks.....	54 44	
Frank Hoyt.....	25 72	
R. B. Seeton.....	21 71	
FOSTER STREET.		
C. A. Thompson.....	23 61	
HARVARD STREET.		
C. W. Wilder.....	84 21	
HIGH STREET.		
F. K. Brown.....	34 37	
Francis Brown.....	34 37	
James Murkland.....	22 13	
G. F. Offutt.....	25 45	
Amounts carried forward.....	$ 723 44	$ 114,825 73

Amounts brought forward.....	$ 723 44	$ 114,825 73

HUMPHREY STREET.

From Martin L. Bassett.....	32 27
Martin L. Bassett.....	32 12
Helen A. Crosby.....	55 83
Est. John H. Fuller.....	22 20
W. W. Hanchett.....	45 25
Mary Ryan.....	24 10

JUNE STREET.

Jennie C. Adams.....	9 40
M. E. and M. G. Carkill.....	12 15
Mary Connors.....	8 78
Arthur Greeley.....	9 05
Wm. E. Livingston.....	19 03
Mead, Mason & Co.....	36 23
Richard Ryan.....	8 78
Charles T. Tuttle.....	8 95

LINCOLN STREET.

George L. Hubbard.....	30 08
J. Q. A. Hubbard.....	61 43
S. P. Perham.....	51 70

LINDEN STREET.

Michael Hunt.....	47 98

LIVINGSTON AVENUE.

C. A. Abbott.....	48 00
H. W. Church.....	52 09
John McCormick.....	48 00

MAMMOTH ROAD.

J. S. Brooks.....	49 67

Amounts carried forward.....	$ 1,436 53	$ 114,825 73

Amounts brought forward.....	$ 1,436 53	$ 114,825 73

MIDDLESEX STREET.

From J. H. White.....	59 28	

NINETEENTH STREET.

Est. E. A. Bigelow.....	54 68	
Ward Charters.....	21 12	

PRINCETON STREET.

Robert J. Butcher.....	92 12	

ROGERS STREET.

Appropriations for commons.	363 37	

SCHOOL STREET.

Lowell Gas Light Co.....	294 04	
Nashua and Lowell Railroad..	26 50	
Catharine Ryan.....	42 22	

SHAW STREET.

James Donovan.....	18 80	

SHELDON STREET.

S. C. Shirley Est.....	54 67	

SOUTH CANTON STREET.

M. D. Baker.....	43 39	

STEVENS STREET.

E. F. Coburn.....	75 10	
R. Dean et als.....	58 22	
Amounts carried forward.....	$ 2,640 04	$ 114,825 73

Amounts brought forward.....	$ 2,640 04	$ 114,825 73
From J. D., W. S. and J. A. Foote.	63 85	
Willie Gray.....	63 00	
J. F. Hamilton.....	67 80	
H. C. Howe.....	119 20	
K. F. Jeanotte.....	63 58	
F. W. Jenness.....	37 50	
S. G. Parker.....	49 60	
S. G. Parker and G. W. Young	149 45	
N. J. Wier.....	24 45	
Dennis Wholey.....	47 80	

TWELFTH STREET.

C. T. Cutting.....	114 73	

WILDER STREET.

J. G. Peabody.....	46 14	

WHITNEY AVENUE.

Wm. G. Bumps.....	42 76	
Nellie M. Gordon.....	24 00	
J. C. Johnson.....	72 00	
F. J. Small.....	24 00	
Mrs. S. P. Shattuck.....	38 40	
H. A. Thurston.....	48 00	
A. M. Wentworth.....	48 00	
F. H. Whitney.....	42 29	
		$ 3,826 59

TRANSFERS.

From Reserved Fund.....	$ 35,000 00	
Appropriation for Paving....	10,939 19	
Appropriation for Schools.....	3,000 00	
Appropriation for Paupers....	2,000 00	
Appropriation for Interest....	854 17	
Corporation Tax.....	4,823 67	
		$ 56,617 03
		$ 175,269 35

EXPENDITURES.

Paid SUPERINTENDENT OF STREETS and CIVIL ENGINEER:		
To Robert E. Crowley, Superintendent of Streets, salary..	$ 54 64	
Cleveland J. Cheney, Superintendent of Streets, salary.	1,945 36	
George Bowers, Civil Engineer, salary.....	2,700 00	
		$ 4,700 00
Paid sundry persons for labor....	$ 109,134 68	
		$ 109,134 68
Paid for FUEL:		
To Appropriation for Paupers for Wood.....	$ 29 28	
Daniel Gage, for wood.....	3 50	
Wm. Kittredge Co., for coal...	319 57	
Wm. E. Livingston, for coal..	22 92	
Rourke & Sullivan, for coal..	128 93	
E. A. Wilson, Agent.....	318 13	
		$ 822 33
Paid for HAY, GRAIN, ETC.:		
To Horace P. Beals.....	$ 1,593 39	
Blake Bros'.....	218 74	
Blake & Wood.....	2,161 16	
Joseph Bowers.....	55 47	
Edmund Brickett.....	61 85	
Coffey Bros'.....	81 72	
J. F. Denning.....	355 12	
G. M. Foster.....	144 96	
D. S. Fox.....	15 90	
Eben T. Fox.....	228 35	
W. P. Foye.....	43 50	
Wm. E. Livingston.....	993 70	
Joseph Miller.....	443 71	
George E. Pevey.....	53 07	
E. S. Sherman & Co.....	655 44	
Alba G. Stiles.....	45 09	
A. G. Stiles & Co.....	61 06	
Amounts carried forward.....	$ 7,212 23	$ 114,657 01

Amounts brought forward.....	$ 7,212 23	$ 114,657 01	
To Paul Vigeant.....	663 39		
Thorley Food Co.....	28 00		
Thomas Varnum.....	225 55		
O. D. Wilder.....	199 50		
E. N. Wood & Co.....	1,800 57		
		$ 10,129 24	
Paid for LUMBER, STONE, BRICK, CEMENT, Etc.:			
To A. P. Bateman.....	$ 726 15		
Horace P. Beals.....	689 89		
Burnham & Davis.....	867 45		
A. W. Cheney.....	33		
Mark Holmes, Jr., & Son.....	2 75		
Holmes & Bray.....	46 90		
Howe Lumber Co.....	1,964 96		
Amasa Pratt & Co.....	9 60		
Sarah J. Smith.....	8 25		
Joseph Bowers.....	259 68		
Benj. G. Brown.....	65 95		
Josiah M. Butman.....	56 73		
Edward Cawley.....	157 08		
H. E. Fletcher & Co.....	10,523 16		
H. V. Hildreth.....	555 84		
James F. Holden.....	121 00		
Wm. E. Livingston.....	15 05		
Joseph Loiselle.....	25 00		
Massachusetts Broken Stone Co.....	740 58		
Charles Runels.....	43 10		
E. A. and A. T. Smith.....	6,038 15		
Staples Bros'.....	917 62		
E. A. Wilson, Agent.....	911 43		
		$ 24,746 65	
Paid for HARDWARE, TOOLS, ETC.:			
To American Road Machine Co..	$ 3,369 00		
Charles E. Adams.....	370 37		
W. T. S. Bartlett.....	96		
J. C. Bennett.....	160 80		
F. W. Cheney & Co.....	77		
Amounts carried forward.....	$ 3,901 90	$ 149,532 90	

Amounts brought forward.....	$ 3,901 90	$ 149,532 90
To C. G. Coburn.....	31 20	
Henry C. Girard.....	1,717 56	
Globe File Works.....	5 45	
Hickory Broom Fibre Co.....	155 00	
L. S. Kimball.....	8 10	
A. F. Nichols.....	2 17	
Thompson Hardware Co.....	25 52	
		$ 5,846 90
Paid for HORSES, CARRIAGES, HARNESSES, ETC.:		
To Abbott Downing Co.....	163 00	
Archibald Wheel Co.....	7 75	
George F. Allen.....	5 50	
T. M. Bolton.....	26 35	
Boutwell Bros.'.....	1,487 91	
A. H. Cluer.....	1,122 40	
Conant & Co.....	46 75	
J. C. Donovan.....	23 00	
George M. Dole.....	20 00	
H. F. Ebert.....	95 25	
C. H. Hanson, Jr.....	132 60	
Lowell Iron Co.....	26 05	
E. P. Bryant.....	3 85	
Fay Bros. & Hosford..	62 08	
Charles F. Kappler.....	80	
Sawyer Carriage Co.....	23 75	
		$ 3,247 04
Paid for SUNDRIES:		
To Appropriation for Watering Streets, for Assessments....	$ 32 95	
Appropriation for Sewers and Drains, for fire brick, labor and use of steam drill, etc...	223 75	
Appropriation for Water Works for pipe, water, etc..	330 43	
Lowell Electric Light Corporation for lights.....	227 71	
Lowell Gas Light Co., for gas.	71 00	
N. E. Tel. and Teleg. Co., for services.....	83 40	
Amounts carried forward.....	$ 969 24	$ 158,626 84

Amounts brought forward.....	$ 969 24	$ 158,626 84
To W. U. Teleg. Co., for service..	1 71	
H. R. Barker Mfg. Co., for pipe, fittings, labor, etc.....	35 58	
John H. Barry, for repairing water closet.....	2 80	
Buff & Berger, for brass tube, tripod caps, etc.....	6 56	
W. W. Carey, for labor.....	5 94	
Chelmsford Foundry Co., for gates at Varnum Park.....	25 00	
T. Costello & Co., for lead pipe and labor.....	13 75	
Derby & Morse, for switch and labor.....	3 07	
John Dennis, for labor.....	4 00	
Drury & Green, for pipe, fittings, labor, etc.....	6 19	
E. G. Fay, for repairing electric bell and battery.....	5 00	
Josiah Gates & Sons, for hose and repairing hose.....	16 12	
Charles E. Gee, for labor and material.....	10 65	
Charles T. Haskell, for filing saws.....	29 55	
Hodges & Harrington, for plumb bobs.....	9 50	
S. H. Jones, for pipe, fittings, solder and labor.....	99 08	
Lowell Wire Works, for wire cloth.....	22	
Lowell Steam Boiler Works, for castings.....	12 02	
Lowell Iron Co., for iron.....	8 24	
W. A. Mack & Co., for pails, cans, rivets, labor, etc.....	45 16	
Martin & Langley, for water pot.....	1 00	
A. Nourborn, for repairing steam road roller.....	56 58	
A. F. Nichols, for castings....	10 55	
Wm. Churchill Oastler, for repairing steam road roller...	79 10	
Amounts carried forward.....	$ 1,456 51	$ 158,626 84

Amounts brought forward.....	$ 1,456 51	$ 158,626 84
To Polley Bros., for repairing stone crusher.....	10 80	
Jerry Ryan, for stove pipe, labor, etc.....	14 34	
Rice & Company, for wire cloth	5 28	
O. A. Richardson's Sons, for repairing tapes.....	1 75	
Alvin Thompson, door numbers.....	18 20	
Henry F. Whiting, for rubber belting.....	14 04	
Weir Electric Co., for tubes, switch, labor, etc.....	52 46	
H. H. Wilder & Co., for tin jets	2 50	
C. Zimmer, for repairing lock and fitting keys.....	5 00	
Abbott Downing Co., for repairing street sweepers.....	36 64	
C. B. Coburn & Co., for alcohol, brooms, oil, cord, can, etc...	592 38	
Crystal Oil Co., for oil.....	48 79	
C. S. Cummings, for broom material.....	5 10	
Donovan & Co., for brooms and ginger.....	14 00	
Ellingwood & Co., for aconite.	1 00	
John J. Farrell, for medicine..	4 00	
W. H. Gibson, for hoof compound.....	14 38	
Charles L. Gilman, for broom material.....	39 50	
E. F. Hathaway, for signs....	1 86	
Hickory Broom Fibre Co., for brooms, handles and filling.	448 00	
Hecla Powder Co., for fuse, gelatine, powder, etc.....	183 00	
P. M. Jefferson, for soap.....	40 00	
Kimball, Freed & Co., for oil and grease.....	231 15	
Lowell Axle Oiler Co., for oilers and grease.....	110 00	
Mrs. Leonard, for milk.....	8 82	
G. A. Leavens, for dynamite..	145 00	
Frank E. McNabb, for medicine	8 35	
Amounts carried forward	$ 3,512 95	$ 158,626 84

Amounts brought forward.....	$ 3,512 95	$ 158,626 84
To Felix Manning, for broom material.....	8 75	
Wm. Nichols & Co., for fuse, dualin, exploders, etc.....	13 72	
O'Sullivan Bros., for blacking and brush.....	35	
G. W. Page, for rope.....	2 00	
Robinson & Foster, for Germol	12 50	
Smith & Gould, for lotion....	30 00	
W. H. Spalding & Co., for ink, pencils, etc.....	13 23	
Savage Bros., for lard, oatmeal, sulphur, etc.....	110 10	
Spencer & Co., for signs.....	3 00	
J. A. Spiers, for harness dressing.....	4 00	
P. P. Stiles & Co., for ginger..	75	
Talbot Dyewood and Chemical Co., sulphur, epsom salts, etc	2 55	
A. J. Wellington, for dynamite	21 00	
Leighton Bros., for lantern, burners, globes, etc.....	16 05	
Lundberg's Custom Laundry, for laundering.....	23 72	
John McAskie, for danger flags	24 78	
Offutt & Pierce, for oil cloth..	84	
A. G. Pollard & Co., for cloth..	6 00	
L. Beals, for fasteners.....	2 00	
F. U. Cambridge, for stationery, etc.....	23 80	
Campbell & Hanscom, printing and advertising.....	32 94	
Courier-Citizen Co., for printing and advertising.....	10 12	
Dumas & Co., for blank books and covers.....	24 50	
Frost & Adams, for tracing cloth and paper.....	7 48	
Hooper, Lewis & Co., for blank books.....	5 00	
B. M. & M. E. Hutchins, for carbons.....	1 70	
Thomas H. Lawler, for stationery, etc.....	15 90	
Amounts carried forward.....	$ 3,929 73	$ 158,626 84

Amounts brought forward.....	$ 3,929 73	$ 158,626 84
To Library Bureau, for index cards, guide, tray, etc.....	8 75	
J. Merrill & Son, for blank books, stationery, etc.....	21 85	
Middlesex County, for book...	1 50	
Morning Mail Corporation, for blank books and advertising	82 42	
G. C. Prince & Son, for rubber bands.....	2 10	
Sampson Murdock & Co., for N. E. Directory.....	6 00	
E. G. Soltman, for crayons....	90	
J. L. Severance, for stamps...	3 00	
Spencer & Co., for signs.....	10 50	
Thompson & Hill, for printing	92 50	
George Bowers, for postage and mileage ticket.....	12 65	
C. J. Cheney, for travelling expenses and expenses of Committee.....	127 00	
James P. Donohoe & Co., for refreshments.....	16 35	
Merrimac House, for refreshments.....	245 80	
Richardson's Hotel, for refreshments.....	104 60	
E. Lavery, for repairing rubber boots.....	4 15	
Thomas F. Fay, for cleaning vaults.....	6 00	
Loren M. Fuller, for pasturing horse.....	4 07	
F. C. Beharrel et. als., for amount awarded for land taken and damages caused in extension of Princeton Street.....	180 00	
Frank G. Cummings, for amount paid for removal of earth Varnum Avenue.....	75 00	
Charles E. Cashin, for land taken for extension of Wightman Street.....	697 26	
Amounts carried forward.....	$ 5,632 13	$ 158,626 84

Amounts brought forward.....	$ 5,632 13	$ 158,626 84
To Theodule Durand, for personal injuries.....	50 00	
Est. Elisha Davis, for land taken and damages caused in extension of Prospect Street.....	1,102 90	
Alonzo Falls, for land taken and damages caused in extension of Princeton Street..	400 00	
Eddie L. Gray, for overcharge for edgestone on A Street...	4 61	
Alphonso R. Kingsbury, for injury to horse.....	100 00	
Kate F. Jeanotte, for error in sidewalk assessment.....	5 00	
Wm. J. Marshall, for land taken and damages caused in extension of Princeton Street.....	100 00	
George F. Penniman, for land taken and damages caused in laying out Warwick Street.....	398 10	
Azell A. Smith, for land taken and damages caused in extension of Princeton Street	100 00	
David S. Spaulding, for land taken and damages caused in extension of Sixth Avenue	970 32	
James F. Sullivan, for land taken and damages caused in extension of Sixth Avenue	2,791 00	
Sarah E. White, for land taken and damages caused in taking land on Foster Street..	600 00	
Charles Runels, for labor.....	119 28	
Wm. H. Ward, for retaining wall Moody Street.....	861 43	
Town of Dracut, for taxes of 1896.....	28 56	
A. W. Baker, for professional services.....	36 00	
A. H. McCann, for professional services.....	12 00	
Amounts carried forward.....	$ 13,311 33	$ 158,626 84

Amounts brought forward.....	$ 13,311 33	$ 158,626 84
To Charles H. Ricker, for professional services.....	13 00	
W. A. Sherman, for professional services.....	41 50	
Jesse A. Viles, for professional services.....	19 50	
Charles R. Wood, for professional services.....	6 00	
E. Bibeault, for teaming.....	96 00	
John F. Brown, for teaming..	4 00	
B. G. Brown, for teaming....	376 00	
Conners Bros., for teaming...	290 00	
Charles Clapp, for use of horse and teaming.....	318 50	
E. Duren, for teaming.....	418 00	
Edmund Dudley, for teaming	92 00	
Alfred Gingras, for teaming..	96 00	
E. Gordon, for teaming.....	2 00	
Willie Gaudette, for teaming..	64 00	
C. H. Hanson & Co., for teaming and use of horse.....	259 50	
Byron W. Johnson, for teaming.....	2 00	
Peter Latour, for teaming.....	184 00	
Joseph Mullen, for teaming..	8 00	
A. W. McDonald, for teaming	44 00	
Joseph Plummer, for teaming	260 00	
O. B. Reed, for use of horse...	31 00	
Walter W. Smith, for teaming and use of cart.....	335 50	
G. E. Stanley, for teaming....	96 00	
Wm. H. Murphy, for carriage hire.....	2 00	
Murphy & Bingham, for carriage hire.....	61 00	
J. E. O'Donnell, for carriage hire.....	20 00	
J. H. Sparks, for carriage hire and professional services...	112 00	
American Express Co., for transportation.....	6 65	
Boston and Maine Railroad, for transportation.....	31 41	
Amounts carried forward.....	$ 16,600 89	$ 158,626 84

Amounts brought forward.....	$ 16,600 89	$ 158,626 84
To N. Y., N. H. and H. R. R. Co., for transportation.....	22 27	
N. Y. and B. Des. Ex. Co., for transportation.....	19 35	
		16,642 51
Total Expenditure for the year 1896.....		$ 175,269 35

WATERING STREETS.

Balance undrawn Jan. 1, 1896..	$ 7,139 16	$ 7,139 16

RECEIPTS.

From Appropriation for Sewers and Drains, for use of team	$ 115 00	
C. J. Cheney, for sale of old material.....	18 50	
Joseph Taylor, for overdraft..	2 00	
Sundry persons, for assessments of 1893.....	2 50	
Sundry persons, for assessments of 1894.....	283 46	
Sundry persons, for assessments of 1895.....	2,845 31	
Sundry persons for assessments of 1896.....	7,192 75	
		10,459 52
		$ 17,598 68

EXPENDITURES.

Paid for SUNDRIES:		
To Appropriation for Roads and Bridges for services of Superintendent, repairing carts harnesses, etc.....	$ 887 20	
Appropriation for Public Buildings, for labor and material.....	344 29	
Amount carried forward.....	$ 1,231 49	

Amount brought forward.....	$ 1,231	49
To Appropriation for Water Works, for water.....	756	00
Appropriation for Water Works, for moving stand pipes.....	10	60
Appropriation for Watering Streets, for assessments....	13	75
Sundry persons, for labor....	5,661	44
Lowell Electric Light Corporation, for lights.....	66	77
Burnham & Davis, for lumber	3	80
Howe Lumber Co., for lumber	2	31
Henry C. Girard, for tacks....		40
H. R. Barker Mfg. Co., for pipe, fittings, labor, etc.....	81	65
Charles E. Gee, for repairing watering cart.....	1	60
H. C. Moore, for repairing sprinkler.....	1	05
A. Nourborn, for repairing watering cart.....	1	55
J. L. and H. K. Potter, for washers, springs, etc.....	21	70
C. B. Coburn & Co., for white lead.....		40
Lowell Axle Oiler Co., for oilers.....	60	00
Smith & Goold, for lotion....	12	00
A. H. Cluer, for sponges, harnesses and repairing.....	121	35
H. F. Ebert, for repairing harnesses.....	21	40
Charles H. Hanson, Jr., for repairing harnesses.....	14	30
Horace P. Beals, for hay.....	254	94
Blake & Wood, for hay and straw.....	723	47
J. F. Denning, for hay.....	225	63
Wm. E. Livingston, for oats and salt.....	170	31
Joseph Miller, for oats.....	156	44
E. S. Sherman & Co., for oats	93	88
Alba G. Stiles, for grain.....	44	79
Amount carried forward.....	$ 9,753	02

Amount brought forward.....	$ 9,753 02	
To A. G. Stiles & Co., for grain...	60 45	
E. N. Wood & Co., for grain..	229 84	
Dumas & Co., for blank books	5 25	
F. E. Brabrook, for assessment paid twice.....	1 45	
Massachusetts Cotton Mills, assessment of 1894 abated..	31 96	
A. W. Baker, for professional services.....	28 00	
W. A, Sherman, for professional services.....	19 50	
American Express Co., for transportation.....	15	
E. Gordon, for teaming and use of horse.....	90 00	
O. B. Reed, for use of horse...	16 00	
Total Expenditure for the year 1896.....		$ 10,235 62
Balance undrawn Dec. 31, 1896..		7,363 06
		$ 17,598 68

PAVING.

Balance undrawn Jan. 1, 1896..	$ 2,103 56	$ 2,103 56

RECEIPTS.

From E. W. Rollins & Son, on loan.	$ 25,000 00	
Lewis Gumb, for paving blocks.	10 05	
		25,010 05
		$ 27,113 61

EXPENDITURES.

Paid for SUNDRIES:

To Appropriation for Roads and Bridges, for teaming and labor.	$ 517 00
Sundry persons, for labor....	4,287 75
Charles A. Bailey, for paving blocks.	416 91
H. E. Fletcher & Co., for paving blocks.....	5,226 68
Boston Paving Co., for brick paving for Moody Street Bridge.	5,059 80
McDonald Bros., for paving blocks.	273 76
Burnham & Davis, for lumber	16 58
A. P. Bateman, for lumber..	6 22
Amount carried forward	$ 15,804 70

Amount brought forward.....	$ 15,804 70	
To Howe Lumber Co., for lumber	99 67	
Charles E. Adams, for hardware.....	1 17	
Henry C. Girard, for hardware	10 68	
H. R. Barker Manfg. Co., for pipe, bolts, wedges, labor, etc.....	61 78	
Joel Knapp & Son, for iron and labor.....	144 04	
W. A. Mack & Co., for copper and labor.....	2 35	
A. F. Nichols, for castings...	26 28	
Thompson Hardware Co., for hardware.....	45	
Campbell & Hanscom, for advertising.....	3 75	
Morning Mail Corp., for advertising.....	5 00	
Thompson & Hill, for printing	4 50	
Total Expenditure for the year 1896.....		$ 16,164 37

TRANSFERS.

To Appropriation for Roads and Bridges.....	$ 10,939 19	
Appropriation for Commons..	10 05	
		10,949 24
		$ 27,113 61

EXTENSION OF MOODY STREET.

Balance undrawn Jan. 1, 1896..	$ 60,327 19	
Transferred from Reserved Fund	5,000 00	
		$ 65,327 19

EXPENDITURES.

Paid for SUNDRIES:		
To Appropriation for Water Works, for labor.....	$ 13 25	
Sundry persons, for labor....	804 64	
G. W. G. Ferris & Co., for inspecting and testing bridge material.....	707 72	
Groton Bridge and Manufacturing Co., for iron work (Contract).....	57,500 00	
Wm. H. Ward, for balance due on contract for stone work..	2,755 55	
Wm. H. Ward, for building retaining wall.....	3,514 60	
G. A. Nelson, for photographs	16 68	
Total Expenditure for the year 1896.....		*$ 65,312 44
Transferred to Appropriation for Commons.....		14 75
		$ 65,327 19

*To this amount add the sum of $23,886.46 expended in 1895, making total cost of extension of Moody Street, $88,698.90.

GRADE CROSSINGS.

Received from Susan B. Cabot, on loan.....	$ 20,000 00	
		$ 20,000 00

EXPENDITURES.

Paid for SUNDRIES:		
To Appropriation for Roads and Bridges, for teaming, labor and material.....	$ 7,114 90	
Reserved Fund, for amount paid John F. Frye, for land damages caused by grade crossing at Lawrence and Billerica Streets.....	800 00	
Sundry persons, for labor....	2,249 15	
Total Expenditure for the year 1896.....		$ 10,164 05
Balance undrawn Dec. 31, 1896..		9,835 95
		$ 20,000 00

CITY CEMETERIES.

Balance undrawn, Jan. 1, 1896..	$ 254 36		
Appropriation.....	2,000 00		
		$	2,254 36

RECEIPTS.

From Wm. W. Clark, for care, sale, repair of lots, etc.....	$ 5,743 50		
Charles Cook, for overdraft...	88		
			5,744 38
		$	7,998 74

TRANSFERS.

From Reserved Fund.....	$ 1,000 00		
Appropriation for Interest....	457 31		
			1,457 31
		$	9,456 05

EXPENDITURES.

Paid for SUNDRIES:

To Appropriation for Watering Streets, for assessments....	$ 31 66
Appropriation for Public Buildings, for building 2,036 feet of fence @ 37½c. per foot	763 50
Amount carried forward.....	$ 795 16

Amount brought forward	$	795 16
To Appropriation for Public Buildings, for building shed		250 00
Appropriation for Public Buildings, for labor and material		34 75
Appropriation for Water Works for water		194 84
Sundry persons, for labor		5,088 99
Lowell Gas Light Co., for meter connections		1 00
N. E. Tel. and Teleg. Co., for service		30 00
Wm. W. Clark, for rent of stable, postage, car fare, etc.		142 52
T. H. Gordon, for services relating to lots		50 00
Howe Lumber Co., for lumber		2 20
Sturtevant & Galer, for lumber		3 00
Boutwell Bros., for cable chain		80
Henry C. Girard, for hardware, hose, tools, etc.		440 04
C. Clough, for filing saws		1 80
T. Costello & Co., for pipe, solder and labor		11 17
Farrell & Conaton, for pipe, fittings and labor		13 65
Philip Ginty, for slate, zinc and labor		2 15
Charles E. Gee, for repairing and sharpening lawn mowers		9 05
Charles F. Kappler, for blacksmithing		70 43
Staples Bros., for castings		9 60
C. Zimmer, for keys		45
Adams & Co., for settees		28 05
French & Puffer, for brooms and brushes		4 38
D. W. Horne & Son, for coal		27 75
George F. Allen, for straps, blanket, etc.		11 50
Daniel P. Byam, for horse sled, yoke and whiffletrees		59 00
Amount carried forward	$	7,282 28

Amount brought forward.....	$ 7,282 28	
To H. F. Ebert, for halters, harness, repairing, etc.....	80 90	
C. H. Hanson & Co., for horse and medicine.....	104 25	
J. Bowers, for hay.....	97 61	
T. J. McDonald, for grain.....	4 95	
E. N. Wood & Co., for grain...	158 71	
C. B. Coburn & Co., for paint, oil, varnish, sponges, etc....	11 27	
Caleb L. Smith, for loam and sod.....	474 00	
Patten & Co., for plants and shrubs.....	162 42	
H. W. Tarbell, for trees.....	93 75	
E. Bibeault, for manure.....	52 81	
Wm. W. Clark, for manure....	10 00	
H. A. Coburn, for sods.....	24 00	
P. D. and T. S. Edmunds, for sod.....	265 40	
George B. Fuller, for loam....	4 00	
C. A. Gilman, for manure....	25 00	
George Maddox, for manure..	12 00	
John M. Kennedy, for sand...	87 30	
Wm. H. Shedd, for sod.....	12 60	
Edward Cawley, for building sewer and catch basins....	245 00	
P. Conlon, for mason work and material.....	39 40	
Conners Bros., for loam and cement.....	12 60	
R. Wilson Dix, for loam and foundation for shed.....	77 00	
Gumb Bros., for posts, tablet and labor.....	19 00	
Wm. E. Livingston, for plaster and cement.....	2 15	
Dumas & Co., for blank books..	23 00	
Thomas H. Lawler, for stationery, etc.....	17 65	
Morning Mail Co., for printing.....	5 50	
Philip P. Conners, for teaming	20 00	
Joseph Plummer, for teaming	31 50	
Total Expenditure for the year 1896.....		$ 9,456 05

RESERVED FUND

Balance undrawn Jan. 1, 1896..	$ 6,444 08	$ 6,444 08

RECEIPTS.

From Appropriation for Grade Crossings, for amount paid John F. Frye for land.....	$ 800 00	
Appropriation for Library, for heating Library and Reading Room, for 1896.....	2,339 09	
Thomas O. Allen, for milk licenses and registers.....	139 50	
C. F. Coburn, for costs on summons and warrants.....	1,813 44	
C. F. Coburn, for liquor license fees.....	152,548 00	
C. F. Coburn, for recording licenses.....	214 00	
Girard P. Dadman, for office fees.....	3,143 86	
J. R. Fulton, for fees for sealing.....	256 15	
G. F. Noonan, for fees for measuring.....	123 25	
G. F. Noonan, for fees for weighing.....	147 57	
Joseph Smith, for fees for licenses.....	837 00	
Henry Landry, for rent of Huntington and Jackson Halls.....	1,640 00	
Amounts carried forward.....	$ 164,001 86	$ 6,444 08

Amounts brought forward.....	$ 164,001 86	$ 6,444 08
From Veteran Firemen's Association, for rent of Huntington and Jackson Halls.....	45 00	
Commonwealth of Massachusetts, for rent of armory (2 years).....	3,400 00	
Commonwealth of Massachusetts, on account of cattle...	90 00	
County of Middlesex, for rent of Police Court Room.....	2,250 00	
Post 42 G. A. R., for rent of Memorial Hall.....	3 00	
Post 120 G. A. R., for rent of Memorial Hall.....	1 00	
Post 185 G. A. R., for rent of Memorial Hall.....	3 00	
Union Veterans Union, for rent of Memorial Hall.....	2 00	
Warren Sherburne, for heating Old City Hall.....	100 00	
Wm. B. Jones, for hose.....	2 00	
M. Sullivan, for hose.....	90	
E. R. Thurston, for hose.....	74	
James H. Flood, for overdraft	9 00	
Charles Littlefield, for overdraft.....	7 50	
W. A. Mack & Co., overdraft..	2 05	
Joseph Peabody, Agt., for premium on insurance policy	8 70	
Jaquith & Bigelow, for copy of bond.....	1 00	
N. E. Tel. and Teleg. Co., for copy of resolution.....	1 00	
Ernest L. Chase, for license as hawker.....	25 00	
Moses Karulewitch, for license as hawker.....	25 00	
A. L. Ready & Son, for old material.....	2 71	
Sundry persons, for amount paid in excess of taxes, costs and interest:		
Albert H. Dyer, tax of John J. McMorrow.....	1 31	
Amounts carried forward.....	$ 169,982 77	$ 6,444 08

Amounts brought forward.....	$ 169,982 77	$ 6,444 08
From Albert A. Dyer, tax of Charles J. and George Norman.....	6 29	
Albert A. Dyer, tax of Kate Cox.....	88	
Albert A. Dyer, tax of Vital Robert.....	13 42	
George A. Farley, tax of Wm. B. Viney.....	34 62	
Peter A. Fay, tax of Theresa Prudent.....	8 54	
James H. McDermott, tax of M. A. Clark.....	6 87	
H. M. Potter, tax of owner unknown.....	6 39	
L. E. Smith & E. B. Stafford, tax of Marshall Bohonan...	9 60	
		170,069 38
		$ 176,513 46
Transferred from Appropriation for Interest.....		454 98
		$ 176,968 44

EXPENDITURES.

Paid Measurer of Wood and Bark and Superintendent of City Scales:		
To George F. Noonan, salary.....	$ 800 00	$ 800 00

LABOR AT CITY HALL.

To Wm. McGuirk, Janitor.....	$ 910 00	
James W. Barey, Asst. Janitor	392 00	
Wm. McGarr, Asst. Janitor..	238 00	
Joseph Lee.....	637 00	
Eben R. Thurston.....	550 90	
Sarah McDermott.....	624 00	
Julia Ring.....	520 00	
Mary Leary.....	520 00	
Bridget Donnelly.....	520 00	
		4,911 90
Amount carried forward.....		$ 5,711 90

Amount brought forward.....		$ 5,711 90

MAYOR'S OFFICE.

To N. E. Tel. and Teleg. Co., for service.....	$ 17 10	
Merrimac House, for entertaining guests.....	47 00	
B. M. and M. E. Hutchins, for typewriting.....	1 60	
Etta M. McGrade, for typewriting.....	91 38	
C. K. Miller, for mileage tickets	100 00	
Campbell & Hanscom, for subscription.....	4 34	
Courier-Citizen Co., for subscription.....	9 00	
Thomas H. Lawler, for stationery.....	75	
Smith-Premier Typewriter Co., for desk and ribbons.....	49 05	
American Express Co., for transportation.....	1 60	
J. H. Sparks, for carriage hire	280 15	
		601 97

ASSESSORS' OFFICE

To Sundry persons, for services as Clerks and Interpreters, as follows:		
Stephen J. Kirby.....	$ 1,591 28	
Wm. J. Reardon.....	1,193 46	
John J. Devine.....	780 00	
John F. Burrill.....	784 00	
James S. O'Sullivan.....	780 00	
Wm. J. Leonard.....	305 00	
James T. Dunphy.....	290 00	
Joseph A. Malone.....	277 50	
John T. Donohue.....	198 75	
George H. Richardson.....	82 50	
George E. Owen.....	76 25	
W. H. H. Brown.....	77 50	
Eugene Meyrand.....	33 13	
Pierre C. Montmarquet.....	10 00	
Amounts carried forward.....	$ 6,479 37	$ 6,313 87

Amounts brought forward.....	$ 6,479 37		$ 6,313 87	
To Diogenes A. Kidgras.....	21 78			
Francis J. Leblanc.....	2 50			
Michael Iatros.....	25 00			
George A. Locke.....	8 75			
Stephen J. Kirby, for office expenses.....	21 85			
N. D. Pratt, for postage stamps.....	5 00			
N. E. Tel. and Teleg. Co., for service.....	62 65			
Banker and Tradesman, for subscription.....	5 00			
Dumas & Co., for blank books, binding, etc.....	660 25			
Thomas H. Lawler, for stationery.....	12 75			
Lowell Rubber Co., for rubber bands.....	3 50			
A. E. Martel, for letter copying book.....	2 50			
G. C. Prince & Son, for stationery.....	12 30			
J. L. Severance, for stamp, repairing, etc.....	1 65			
Thompson & Hill, for printing	8 00			
Tilton & Co., for stationery...	6 11			
M. R. Warren, for document boxes.....	8 00			
Alvin Lawrence, for repairing clock.....	50			
Thompson Hardware Co., for wrench, buttons, screws, etc.	45			
American Express Co., for transportation.....	90			
			7,348 81	

AUDITOR'S OFFICE.

To David Chase, for office expenses.....	$ 13 00			
Thomas P. Sullivan, clerk....	1,193 46			
Butterfield Printing and Binding Co., for manilla cases...	6 00			
Dumas & Co., for blank books	72 00			
Amounts carried forward.....	$ 1,284 46		$ 13,662 68	

Amounts brought forward.....	$ 1,284 46		$ 13,662 68	
To Thomas H. Lawler, for stationery, ink, mucilage.....	1 98			
C. A. Mitchell & Co., for rubber bands.....	2 50			
G. C. Prince & Son, for ink stopple.....	1 25			
J. L. Severance, for stamps....	4 25			
J. E. O'Donnell, for carriage hire.....	4 00			
J. H. Sparks, for carriage hire	4 00			
				1,302 44

CITY MESSENGER'S OFFICE.

To James H. Cahill, for office expenses.....	$ 7 00	
Ballard & Kirshbaum, for telephone index.....	1 00	
Daily News Job Print, for envelopes.....	6 00	
Lowell Daily Sun, for postal cards and printing.....	22 25	
Nelson H. Earle & Co., for ink	4 00	
C. F. Hatch & Co., for boxes...	20 00	
Thomas H. Lawler, for stationery, waste baskets, postage, etc.....	280 15	
Lyon Platinum Pen Co., for pens.....	11 00	
Sampson, Murdock & Co., for directories.....	11 00	
Henry C. Girard, for hardware, etc.....	22 52	
C. K. Miller, for mileage tickets.....	100 00	
Murphy & Bingham, for carriage hire.....	4 50	
J. E. O'Donnell, for carriage hire.....	18 00	
J. H. Sparks, for carriage hire	339 90	
American Express Co., for transportation.....	4 65	
Manchester & Concord Express Co., for transportation	15	
M. J. Montgomery, for teaming	50	
		852 62
Amount carried forward.....		$ 15,817 74

Amount brought forward.....		$ 15,817 74

CITY CLERK'S OFFICE.

To Girard P. Dadman, for office expenses.....	$ 59 66	
Wm. P. McCarthy, Asst. City Clerk.....	1,193 46	
Belle C. Hill, clerk.....	624 00	
W. F. Miles, clerk.....	15 00	
N. E. Tel. and Teleg. Co., for service.....	85 85	
Campbell & Hanscom, for subscription.....	4 34	
Courier-Citizen Co., for subscription.....	9 00	
Dumas & Co., for blank books	80 25	
B. M. & M. E. Hutchins, for typewriting.....	20 30	
Greenough, Adams & Co., for ink.....	13 00	
E. P. Gerould & Co., for copying book.....	3 50	
Thomas H. Lawler, for stationery.....	4 00	
O. A. Libby, for printing.....	4 75	
J. Merrill & Son, for paste....	50	
Morning Mail Co., for roll calls, printing, etc.....	16 00	
Henry M. Meek, for Lowell and Suburban Directory.....	2 00	
Morgan Crossman & Co., for dater and pad.....	2 10	
G. C. Prince & Son, for stationery.....	20 50	
Tilton & Company, for blank books and stationery.....	6 65	
Columbia Cash Register Co., for repairing typewriter....	3 00	
Henry C. Girard, for seal, brass rings, wax, twine, etc.	12 60	
Thomas Kerwin, for carriage hire.....	35	
J. E. O'Donnell, for carriage hire.....	2 00	
J. H. Sparks, for carriage hire	35	
Amounts carried forward.....	$ 2,183 16	$ 15,817 74

Amounts brought forward.....	$ 2,183 16		$ 15,817 74	
To American Express Co., for transportation.....	6 45			
Manchester and Concord Express Co., for transportation	15			
			2,189 76	

ELECTION EXPENSES.

To Appropriation for Paupers, for wood.....	$ 16 50	
Appropriation for Public Buildings, for lumber and labor.....	1,005 03	
Appropriation for Water Works, for water.....	16 20	
Sundry persons, for Clerks in Registrars' office, as follows:		
John F. Carrigg.....	152 50	
Matthew H. Gilroy.....	61 25	
C. F. Going.....	110 00	
Andrew A. Gray.....	43 75	
Eugene P. McOsker.....	17 50	
Waldo F. Miles.....	240 00	
Wallace G. Parkin.....	2 50	
George H. Richardson.....	66 25	
Arthur F. Salmon.....	2 50	
Sundry persons, for services as Ward officers.....	4,666 00	
Edwards Cheney, for services recounting ballots.....	3 00	
G. P. Dadman, for expenses of Committee on ballot boxes..	11 62	
J. S. Lapierre, for serving notices.....	3 15	
Henry Mercier, for serving notices.....	66	
Charles F. Varnum, for sundry expenses.....	52 50	
Davis & Sargent, for lumber	23 18	
Charles E. Adams, for tacks and lock.....	20	
Amounts carried forward.....	$ 6,494 29	$ 18,007 50

Amounts brought forward.....	$ 6,494 29	$ 18,007 50
To O. E. Averill, for blacksmithing	45	
H. R. Barker Manufacturing Co., for boring pencils.....	1 40	
Henry C. Girard, for tacks, key tags, twine, etc.....	4 54	
Columbia Cash Register Co., for repairing ballot boxes...	4 00	
C. F. Hatch & Co., for ballot boxes.....	31 50	
George W. Huntoon, for repairing ballot boxes.....	9 50	
Charles Littlefield & Co., for repairing boxes.....	34 44	
John Stark, for repairing ballot boxes.....	13 40	
J. W. Bennett, for roofing, paper, tins, nails, etc.....	48 00	
W. A. Mack & Co., for stove..	13 34	
Dumas & Co., for mounting check lists, printing, binding, etc.....	81 30	
Thompson & Hill, for envelopes.....	1 50	
Tilton & Co., for pencils and stationery.....	19 25	
C. B. Coburn & Co., for oil, brooms, candles, etc.....	31 03	
C. G. Coburn, for shovel.....	25	
Est. Joseph Evans, for rent of land, 1895.....	3 00	
James P. Donohoe & Co., for refreshments.....	35 90	
D. L. Page Co., for refreshments.....	4 35	
Sundry persons, for services as Janitors of Ward Rooms, as follows:		
Oscar Brown.....	5 00	
C. J. Day.....	3 00	
John H. Hallet.....	8 00	
Charles D. Harvey.....	4 00	
Michael Leonard.....	3 00	
Amounts carried forward.....	$ 6,854 44	$ 18,007 50

Amounts brought forward.....	$ 6,854 44	$ 18,007 50
To John Manchester.....	11 00	
James McCormick.....	1 00	
John F. Merrill.....	7 00	
Joseph Norris.....	5 00	
Frank O'Rielly.....	3 00	
Wm. H. Stafford.....	3 00	
Eugene Sears.....	6 00	
George Teel.....	17 00	
John H. Toy.....	1 00	
Michael Walsh.....	18 00	
Sundry persons, for teaming, etc., as follows:		
Albert Burnett.....	6 00	
T. J. Dwyer.....	10 00	
D. J. Kelly.....	41 00	
D. P. Knowlton.....	16 00	
F. S. Ladd.....	12 00	
Thomas Little.....	28 00	
James C. Little.....	32 00	
M. J. Montgomery.....	21 00	
J. W. MacDonald.....	5 00	
Fred Moulton.....	3 00	
Frank Richards.....	4 00	
Wm. Roberts.....	117 00	
F. B. Sherman.....	12 00	
E. E. Stoughton.....	6 00	
John Sullivan.....	3 00	
James Welch.....	14 00	
John Whitely.....	1 50	
O. W. Peabody.....	6 00	
J. H. Sparks.....	22 00	
American Express Co.....	3 70	
		7,289 64

CITY SOLICITOR'S OFFICE.

To Appropriations for Roads and Bridges, for services of Engineer.....	$ 17 50	
Appropriation for Police for services of Officer MacDonald.....	1,172 68	
Amounts carried forward.....	$ 1,190 18	$ 25,297 14

Amounts brought forward.....	$ 1,190 18	$ 25,297 14
To N. E. Tel. and Teleg. Co., for service.....	124 95	
W. U. Teleg. Co., for service..	64	
Commonwealth of Mass., for entry, etc., of case 643.....	1 50	
County of Middlesex, for copies of findings.....	59 75	
Malcom L. Currier, for clerical services.....	7 30	
W. G. Hall, for copy of Town of Dracut Records.....	1 00	
Etta M. McGrade, for services	175 90	
Edward W. Trull, for certificates of entries, writs, etc...	21 50	
Joseph Willard, for copies of records.....	5 00	
Wm. Bass, for expert testimony.....	75 00	
Wm. H. Ward, for expert testimony.....	40 00	
Prentiss Webster, for services in case of Merrill & Cutler vs. City.....	100 00	
Mdsx. Registry of Deeds, Northern District, for recording.....	75	
Courier-Citizen Co., for printing.....	3 50	
F. S. Blanchard & Co., for Massachusetts Year Book.....	1 50	
Elizabeth Hand, for dictionary	22 00	
B. and M. E. Hutchins, for typewriting.....	72 53	
Little, Brown & Co., for books	400 00	
Thomas H. Lawler, for stationery.....	37 70	
George B. Reed, for books....	21 00	
Smith Premier Typewriter Co., for ribbon and exchange of typewriters.....	83 75	
A. H. Sanborn & Co., for pictures.....	14 50	
Edward T. Thompson & Co., for books.....	38 50	
Amounts carried forward.....	$ 2,498 45	$ 25,297 14

Amounts brought forward.....	$	2,498 45	$	25,297 14
To Dunlap & Parkin, for teaming		50		
Thomas Kerwin, for carriage hire.....		5 75		
Murphy & Bingham, for carriage hire.....		1 50		
J. H. Sparks, for carriage hire		59 85		
American Express Co., for transportation.....		2 30		
				2,568 35

EXECUTIONS AND AWARDS FOR DAMAGES.

To Ellen Driscoll, for personal injuries.....	$	50 00		
Michael Doyle, for damage to building.....		25 00		
Ann Given, on execution.....		488 11		
Lillian Hanson, for personal injuries.....		50 00		
Sarah A. Harding, for personal injuries.....		200 00		
Michael Howard, on execution		500 00		
Margaret McKinnon, for personal injuries.....		50 00		
Hannah McCarty, on execution		162 00		
George J. Riordan, for personal injuries.....		50 00		
Annie Rainey, for personal injuries.....		200 00		
Bartholomew Sheehan, on execution.....		350 00		
Alice Ward, for personal injuries.....		50 00		
Mary J. Wright, on execution		518 97		
				2,694 08

CITY TREASURER'S OFFICE.

To Charles F. Coburn, for office expenses.....	$	705 14		
Andrew G. Stiles, Clerk.....		1,491 96		
Joseph Farrell, Clerk.....		1,193 46		
Florence Gilmore, Clerk.....		624 00		
Margaret MacDonald.....		520 00		
C. W. Whidden, for examination of Accounts.....		138 50		
Amounts carried forward.....	$	4,673 06	$	30,559 57

Amounts brought forward.....	$ 4,673 06	$ 30,559 57
To Appropriation for Police, for services of officers.....	13 75	
N. E. Tel. and Teleg. Co., for service.....	115 05	
Mdsx. Registry of Deeds, No. District, for recording.....	38 30	
American Bank Note Co., for book of bonds.....	22 00	
Banker and Tradesman, for subscription.....	5 00	
F. S. Blanchard & Co., for Massachusetts year book.....	1 50	
Boston News Bureau, for subscription.....	2 76	
J. E. Buerk, for dials.....	1 80	
F. U. Cambridge, for stationery.....	5 60	
Dumas & Co., for blank books, paper, etc.....	208 15	
Wm. B. Dana & Co., for subscription.....	10 00	
Guy W. Hutchins, for stamps	4 80	
Hutchins Rubber Type Foundry, for stamps.....	4 80	
Investor Publishing Co., for subscription.....	4 00	
Thomas H. Lawler, for stationery.....	9 40	
Lowell Rubber Co., for rubber bands.....	2 00	
G. C. Prince & Son, for books, stationery, etc.....	78 94	
J. L. Severance, for stamps...	1 30	
Lincoln R. Welch, for bonds of Andrew G. Stiles and Joseph Farrell.....	100 00	
W. A. Mack & Co., for tin boxes, trunk repairing, water cooler, etc.....	46 10	
E. C. Mosler Safe Co., for repairing vault door.....	22 50	
C. K. Miller, for mileage ticket	20 00	
American Express Co., for transportation.....	1 85	
		5,392 66
Amount carried forward.....		$ 35,952 23

Amount brought forward.....		$ 35,952 23

TAX COLLECTIONS.

To Bernard F. Gately, for serving warrants.....	$ 17 50	
Enoch Gerrish, for serving warrants.....	86 50	
John E. Maguire, for serving warrants.....	68 00	
Henry Mercier, for serving warrants.....	162 50	
John A. McQuade, for serving warrants.....	7 50	
John McManus, for serving warrants.....	261 50	
Joseph Mercier, for serving warrants.....	8 50	
William F. Murray, for serving warrants.....	5 50	
Randolph Webster, for serving warrants.....	1 50	
Thomas J. Johnson, for services as witness.....	10 00	
William Burns, interest and costs.....	75	
Charles E. Bunker, interest and costs.....	24	
Martin Conway, interest and costs.....	75	
Norbert Epel, interest and costs.....	75	
Walter H. Howe, interest and costs.....	24	
Michael Hoar, interest and costs.....	24	
William B. Viney, interest, costs and overpayment on tax of 1896.....	34 62	
Courier-Citizen Co., for advertising.....	132 25	
Daily News Co., for advertising.....	54 00	
Lowell Daily Sun, for advertising.....	50 50	
Amounts carried forward.....	$ 903 34	$ 35,952 23

Amounts brought forward.....	$	903 34	$	35,952 23
To Morning Mail Co., for advertising.....		49 75		
J. H. Sparks, for carriage hire		10 00		
				963 09

INSPECTOR OF MILK, VINEGAR, ETC.

To Thomas O. Allen, for sundry expenses.....	$	18 85		
James E. Hill, for services....		624 00		
Automic Motor Co., for water motor.....		12 15		
Boston Dairy Supply Co., for tests.....		16 00		
Carleton & Hovey, for oil, acids, alcohol, etc.....		33 35		
C. B. Coburn & Co., for alcohol, napthol, benzine, etc.....		3 53		
Derby & Morse, for labor on electrical apparatus.....		3 88		
Eimer & Amend, for tubing, zinc, etc.....		14 37		
Ellingwood & Co., for bottles, corks, etc.....		54 60		
Franklin Educational Co., for stands, tubes, etc.....		16 24		
W. A. Mack & Co., for basin, copper and labor.....		2 60		
A. G. Pollard & Co., for towels		2 00		
Talbot Dyewood and Chemical Co., for ammonia, nitric acid and stopples.....		1 44		
F. U. Cambridge, for stationery.....		2 90		
Courier-Citizen, for blank books.....		24 00		
Thomas H. Lawler, for stationery.....		12 95		
A. M. Meyers, for typewriting		1 32		
Samuel E. Snow, for mason work and material.....		20 00		
J. H. Sparks, for carriage hire		18 00		
American Express Co., for transportation.....		60		
Amounts carried forward.....	$	882 78	$	36,915 32

Amounts brought forward	$	882 78	$	36,915 32
To N. Y. and B. Des. Ex. Co., for transportation		1 40		
				884 18

STATE AID.

To Hubert M. Potter, clerk	$	1,014 00		
Hubert M. Potter, for office expenses		38 70		
Belle B. Hadley, clerk		396 00		
F. U. Cambridge, for stationery		4 83		
George E. Maker, for mirror		1 00		
G. C. Prince & Son, for stationery		19 60		
J. L. Severance, for stamp		1 00		
M. T. Ward, for printing		3 75		
J. H. Sparks, for carriage hire		6 00		
				1,484 88

MAPS AND CHARTS.

To Appropriation for Roads and Bridges, for services of City Engineer	$	100 00		
Sundry persons for labor		3,502 79		
George Bowers, for car fares, postage, subscription, etc		10 75		
George A. Nelson, for car fares		12 00		
O. E. Averill, for rods		2 00		
Buff & Berger, for repairing transit		4 80		
George L. Cady & Son, for clamps, key and labor		21 65		
Hodges & Harrington, for plumb bobs		7 00		
O. A. Richardson's Sons, for repairing instruments, etc		7 55		
Thompson Hardware Co., for tools and line		2 73		
Amasa Pratt & Co., for hubs		10 60		
C. B. Coburn & Co., for transfer paper		90		
Dumas & Co., for covers for plans		40 75		
Amounts carried forward	$	3,723 52	$	39,284 38

Amounts brought forward.....	$ 3,723 52		$ 39,284 38	
To Frost & Adams, for paper....	6 29			
A. L. Kittredge & Co., for blue print, paper, tracing cloth, etc.....	28 10			
Mrs. Atis Osgood, for record books.....	10 00			
Sampson, Murdock & Co., for maps.....	12 60			
W. H. Spalding & Co., for ink and paper.....	8 40			
Tilton & Company, for blank books.....	9 00			
American Express Co., for transportation.....	1 75			
N. Y. and B. Des. Ex. Co., for transportation.....	45			
				3,800 11

HUNTINGTON HALL.

To Henry Landry, Janitor.....	$ 910 00	
Sundry persons, for labor....	2,232 00	
Appropriation for Paupers, for wood.....	2 00	
Appropriation for Police, for services of officers.....	193 88	
Appropriation for Public Buildings, for labor.....	205 00	
Appropriation for Water Works, for water.....	63 00	
Boston and Maine Railroad, for ground rent.....	475 00	
Lowell Gas Light Co., for meter connections.....	1 00	
A. P. Bateman, for lumber...	6 55	
Pratt & Forrest, for moulding	20	
O. E. Averill, for blacksmithing.....	2 50	
H. R. Barker Manfg. Co., for bolts and labor.....	1 80	
Drury & Green, for labor and material.....	49 72	
Farrell & Conaton, for pipe, fittings and labor.....	33 62	
Amounts carried forward.....	$ 4,176 27	$ 43,084 49

Amounts brought forward.....	$ 4,176 27	$ 43,084 49
To Middlesex Machine Co., for repairing boilers.....	109 67	
W. A. Mack & Co., for repairing ventilator, etc.....	37 58	
Thompson Hardware Co., for hardware, glue, etc.....	10 76	
Harwood Manufacturing Co., for chair seats.....	10 80	
O'Donnell & Gilbride, for curtains and rods.....	6 63	
C. B. Coburn & Co., for brooms, brushes, barrels, tapers, etc.	17 81	
Lowell Rendering Co., for soap	12 00	
F. U. Cambridge, for stationery.....	4 50	
Azarie Choquette, for coal....	6 75	
Louis Godin, for coal and wood	5 50	
D. W. Horne & Son, for coal..	178 20	
Rourke & Sullivan, for coal...	26 43	
E. A. Wilson Agt., for coal...	564 35	
Warren Sherburne, for gas...	49 17	
D. F. Lyons, for teaming.....	50	
F. Meehan, for teaming.....	4 50	
		5,221 42

REPORTING BIRTHS.

To Solon Bartlett.....	7 25	
H. R. Brissett.....	1 25	
Pierre Brunnell.....	75	
Mrs. Chalmers.....	1 00	
J. J. Colton.....	2 75	
A. A. Chesnett.....	1 00	
Cornelius A. Daly.....	19 00	
Mrs. M. A. Dooley.....	12 50	
Mary A. Donohoe.....	25	
James B. Field.....	2 50	
J. A. Gagnon.....	3 75	
E. Gervais.....	26 50	
Mrs. Hopner.....	1 50	
Guy Holbrook.....	9 25	
E. B. Holt.....	25	
W. A. Johnson.....	75	
Mary Kenney.....	5 00	
A. W. Lavigne.....	18 75	
Amounts carried forward.....	$ 114 00	$ 48,305 91

Amounts brought forward.....	$ 114 00	$ 48,305 91
To Wm. H. Lathrop.....	20 25	
Wm. P. Lawler.....	21 00	
J. Lamoureux.....	3 00	
Catherine Loftus.....	5 25	
M. J. Landers.....	50	
Mrs. A. McCall.....	2 25	
J. P. McAdams.....	3 00	
Annie McNabb.....	50	
Mary Noel.....	62 50	
Lizzie Nudd.....	1 50	
D. N. Patterson.....	5 75	
C. B. Pool.....	3 75	
J. H. Roy.....	17 25	
Louis V. Rochette.....	57 00	
Charles H. Ricker.....	1 00	
Margaret Sweeney.....	10 75	
Charles B. Saunders.....	1 00	
Thomas B. Smith.....	1 00	
Charles L. Sweetsir.....	4 25	
J. J. Savage.....	2 00	
L. E. Schiller.....	12 00	
Sarah Stewart.....	50	
Catharine Shanley.....	14 50	
James F. Sullivan.....	19 00	
E. W. Trueworthy.....	11 00	
C. W. Taylor.....	1 25	
T. G. Waller.....	4 25	
A. Wilinskly.....	50	
Margaret Wilson.....	75	
F. P. Coggeshall.....	30 00	
M. H. Gilroy.....	34 00	
M. G. Leonard.....	16 00	
Eugene Meyrand.....	44 00	
W. F. Miles.....	15 90	
J. F. McKissock.....	28 20	
Russell MacDonald.....	18 30	
Geo. H. Richardson.....	30 60	
Arthur F. Salmon.....	20 40	
		638 65

HEATING CITY HALL AND MEMORIAL BUILDINGS.

To Appropriation for Paupers, for wood.....	8 00	
Amounts carried forward.....	$ 8 00	$ 48,944 56

Amounts brought forward.....	$ 8 00	$ 48,944 56
To Appropriation for Public Buildings, for labor on boiler	21 55	
Edward Learned, Engineer....	558 00	
Louis Richards, Asst. Engineer	823 25	
Belani Richards, for labor....	636 98	
James Smith, for labor.....	546 00	
Proprietors of Locks and Canals, for water.....	53 57	
American Grate Co., for grates	90 00	
H. R. Barker Mfg. Co., for labor and material on boilers	1,839 83	
Lowell Heating and Plumbing Co., for pipe, fittings and labor.....	15 80	
W. A. Mack & Co., for pipe, fittings and labor.....	33 10	
Scannell & Wholey, for binder, bars and rod.....	11 00	
Samuel E. Snow, for mason work and material.....	31 65	
J. H. Walker, for mason work and material.....	566 80	
C. B. Coburn & Co., for oil and packing.....	1 80	
W. A. Morrison, for oil and packing.....	106 16	
Henry F. Whiting, for belting and lacings.....	3 40	
D. W. Horne & Son, for coal..	2,720 00	
Rourke & Sullivan, for coal..	314 80	
E. A. Wilson Agt., for coal....	469 98	
American Express Co., for transportation.....	55	
Conway & Co., for transportation.....	75	
George E. Stanley, for transportation.....	1 21	
		8,854 18
MEMORIAL DAY.		
Paid Posts 42, 120 and 185, G. A. R., per resolution of City Council.....	$ 1,000 00	
		$ 1,000 00
Amount carried forward.....		$ 58,798 74

Amount brought forward.....		$ 58,798 74

CELEBRATION OF ONE HUNDRED AND TWENTIETH ANNIVERSARY OF AMERICAN INDEPENDENCE.

CHILDREN'S ENTERTAINMENT:		
To Way and Cosgrove.....	$ 200 00	
SALUTES AND RINGING BELLS:		
To Appropriation for School Houses, for ringing bells....	27 60	
Battery C (Lawrence), for salutes and expenses.....	94 30	
F. E. Shaw, for entertaining Battery C.....	35 00	
B. and M. R. R., for transportation.....	2 40	
MUSIC:		
Lowell Military Band.....	175 00	
Lowell High School Drum Corps.....	25 00	
Mirault's City Band.....	140 00	
National Brass Band.....	168 00	
St. Patrick's Cadet Band.....	160 00	
C. H. Philbrick, for lighting band stands.....	4 00	
R. D. Snow, for teaming.....	2 50	
FIREWORKS:		
H. H. Tilton.....	1,000 00	
Charles E. Howe, for expenses of committee.....	12 50	
F. A. M. Tobin, for printing...	14 90	
Thomas C. Copp, for teaming	20 00	
T. G. Little, for teaming.....	18 75	
John Richards, for teaming...	5 00	
Wm. Roberts, for teaming....	35 00	
Amounts carried forward.....	$ 2,139 95	$ 58,798 74

Amounts brought forward.....	$ 2,139 95	$ 58,798 74
PARADE:		
To Burke Temperance Institute..	225 00	
Company Q.....	150 00	
Passaconaway Tribe, Red Men	100 00	
The Brownies.....	75 00	
Post 42, G. A. R.....	50 00	
Columbia O. U. A. M.....	50 00	
Cowboys.....	35 00	
Mount Zion Lodge, I. O. G. T..	25 00	
A. D. Macdonald.....	15 00	
L'Association Catholique.....	10 00	
J. E. Burns, for decorating carriages.....	5 00	
Durant & Rogers, for bicycle medals.....	19 00	
C. A. R. Dimon, for sundry expenses.....	3 00	
George L. Estabrook, for use of horse.....	1 00	
P. H. Heelon, for carriage hire	35 00	
W. R. Kilpartrick, for flags...	2 00	
C. H. Kimball, for uniforms, batons, gloves, leggins, etc.	339 21	
Thomas H. Lawler, for stationery.....	4 15	
Murphy & Bingham, for carriage hire.....	20 00	
O'Donnell & Gilbride, for bunting.....	5 70	
G. C. Prince & Son, for pictures and frames.....	15 00	
A. G. Pollard & Co., for cheese cloth.....	1 00	
O. W. Peabody, for carriage hire and care of horse.....	31 00	
J. H. Sparks, for carriage hire	20 00	
Harry Raynes, for clock.....	15 00	
F. E. Shaw, for refreshments and use of room.....	272 50	
G. E. Stanley, for teaming.....	1 50	
SPORTS:		
Sundry persons, for services as judges.....	20 00	
Amounts carried forward.....	$ 3,685 01	$ 58,798 74

Amounts brought forward.....	$ 3,685 01	$ 58,798 74	
To Sundry persons, for prizes....	46 00		
J. E. Anderson, for prize in bicycle race.....	8 00		
C. H. Campbell, for prize in trotting race.....	25 00		
George E. Putnam, for prize in trotting race.....	15 00		
E. L. Chase, for prize in trotting race.....	10 00		
L. J. Whittemore, for prize in trotting race.....	10 00		
Gardner W. Pearson, for prize in running race.....	15 00		
Wm. Nickerson, for prize in running race.....	10 00		
Wm. R. Folsom, for prize in foot race.....	3 00		
H. Hodgkins, for prize in foot race.....	5 00		
John Kelly, for prize in foot race.....	7 00		
Urban and Suburban Base Ball League, for ball games	97 50		
George H. Wood, for badges..	10 50		
Thomas Holland, for use of tug of war outfit.....	5 00		
J. J. Gallagher.....	7 00		
Calderwood & Robbins, for cigars.....	7 00		
John Tobin, for use of room..	5 00		
George H. Tryder, for expenses of Committee.....	9 40		
Sidney Drewett, for cleaning grand stand.....	1 00		
Timothy J. Dwyer, for teaming	3 00		
		3,984 41	

OBSEQUIES OF GOVERNOR GREENHALGE.

To R. A. Griffiths, for floral design	$ 75 00		
R. A. Griffiths, for use of plants.....	20 00		
O'Donnell & Gilbride, for draping City Hall.....	385 00		
Amounts carried forward.....	$ 480 00	$ 62,783 15	

Amounts brought forward.....	$ 480 00	$ 62,783 15
To S. M. Patterson, for draping..	35 00	
David Casse, for roping off street.....	35 63	
American Orchestra for services.....	30 00	
Merrimac House, for refreshments.....	75 15	
D. L. Page Company, for refreshments.....	440 00	
Martin McGuane, for delivering notice.....	2 00	
B. M. and M. E. Hutchins, for typewriting.....	2 32	
J. H. Sparks, for carriage hire	14 00	
		1,114 10

RIFLE RANGE.

To Appropriation for Roads and Bridges, for engineering....	$ 190 00	
Sundry persons, for labor.....	273 10	
Harry Prescott Graves, for plans and specifications....	383 40	
Charles Griffin, for plan.....	40 00	
Martha M. and Bertha E. Barker and Louise B. Nesmith, for 7 acres and 53 rods land.....	900 00	
First Evangelical Congregational Church of Dracut, for conveyance of 27 acres of land for a term of fifty years	810 00	
Florence Hildreth Nesmith et. als., Trustees under the will of Fisher A. Hildreth, deceased, for 17 23-100 acres of land.....	1,033 80	
Levi N. and Sarah E. Parker, for 96-100 acre of land.....	72 00	
Levi N. Parker, for 14½ acres of land.....	1,087 50	
W. H. Fuller, for mason work and material.....	2,435 01	
W. H. Wiggin, for constructing range.....	4,911 76	
Amounts carried forward.....	$ 12,136 57	$ 63,897 25

Amounts brought forward.....	$ 12,136 57	$ 63,897 25
To Howe Lumber Co., for lumber	6 22	
J. C. Bennett, for hardware and tools	10 91	
Farrell & Conaton, for pipe, fittings and labor.....	66 79	
W. A. Mack & Co., for stove pipe and zinc.....	24 48	
James F. McElholm, for electric system.....	243 36	
Joseph Peabody Agt., for insurance.....	60 00	
Lowell & Suburban Street Railway Co., for special car service.....	10 00	
N. E. Bunting Co., for flags....	8 75	
Offutt & Pierce, for chairs....	20 40	
O'Donnell & Gilbride, for bedding and towels.....	37 17	
Butterfield Printing and Binding Co., for printing.....	5 00	
J. H. Sparks, for carriage hire	8 00	
D. P. Knowlton, for teaming..	5 00	
D. F. Lyons, for teaming.....	5 00	
		$ 12,647 65

GRADE CROSSINGS.

To John F. Frye, for land and damages, Lawrence and Billerica Streets.....	$ 800 00	
		$ 800 00

SUNDRIES.

To Appropriation for Roads and Bridges, for teaming and labor.....	$ 35 24	
Appropriation for Watering Streets, for assessments....	45 57	
Appropriation for Police, for services of officers at City Hall.....	1,006 50	
Appropriation for Police, for license blanks, rules, etc....	180 17	
Amounts carried forward.....	$ 1,267 48	$ 77,344 90

Amounts brought forward.....	$ 1,267 48	$ 77,344 90
To Appropriation for Public Buildings, for labor and material	95 19	
Appropriation for Water Works, for water at drinking fountains.....	315 00	
Appropriations for Water Works, for water.....	106 00	
Appropriation for Water Works, for pipe, labor, etc..	14 36	
Lowell Electric Light Corp., for lights.....	43 47	
N. E. Tel. and Teleg. Co., for service.....	131 95	
Boston Spar Co., for flag staff No. Common.....	448 00	
Henry C. Girard, for hardware, ash cans, plates, keys, etc...	174 25	
H. R. Barker Manfg. Co., for labor and material.....	28 92	
George L. Cady & Son, for key	35	
Drury & Green, for pipe, fittings and labor.....	158 32	
Derby & Morse, for switches, wire, labor, etc.....	51 19	
Farrell & Conaton, for pipe, fittings, globes, labor, etc...	22 10	
Alvin Lawrence, for care and repair of clocks.....	387 75	
Henry F. Harding, for labor on lights.....	86 03	
S. H. Jones, for sink waste and labor.....	4 88	
W. A. Mack & Co., for repairing water cooler, fence, labor, material, etc.....	74 95	
James F. McElholm, for labor on electrical fixtures.....	237 68	
The Graves Elevator Co., for repairing elevator.....	25 74	
Thompson Hardware Co., for hardware.....	11 89	
Alvin Thompson, for street numbers.....	6 13	
Amounts carried forward.....	$ 3,691 63	$ 77,344 90

Amounts brought forward.....	$ 3,691 63	$ 77,344 90
To Weir Electric Light Co., for decorating Memorial Hall for G. A. R. encampment...	40 00	
D. H. Wilson, & Co., for cascade closet and labor.....	72 00	
Carleton & Hovey, for soap...	7 35	
C. B. Coburn & Co. for brushes, sal soda, waste, etc.....	39 84	
C. E. Collins, for brushes.....	2 25	
Higgins, Snow & Co., for toilet paper.....	5 00	
India Alkali Works, for savogran.....	37 18	
A. L. Kittredge & Co., for feather dusters.....	13 20	
Joseph Plunkett, for soap....	5 50	
A. L. Ready & Son, for rags...	4 32	
P. P. Stiles & Co., for Bom-Ami and tumblers.....	10 43	
James W. Cassidy, for towels	3 60	
W. R. Waterman, for repairing chair.....	1 50	
O. N. Wardwell, for mop wringers.....	8 00	
Daily News Co., for advertising.....	2 25	
C. F. Hatch & Co., for boxes..	7 50	
Thomas H. Lawler, for document box.....	2 50	
G. C. Prince & Son, for subscriptions.....	45 36	
L. J. Richards, for seven copies Atlas of Lowell.....	175 00	
Sampson, Murdock & Co., for forty directories.....	80 00	
Tilton & Company, for blank book.....	90	
Merrimac House, for entertainment of guests.....	120 55	
Richardson's Hotel, for entertainment of guests.....	11 55	
John Cross, for repairing flags	5 00	
R. A. Griffiths, for bouquets and floral design.....	56 00	
Amounts carried forward.....	$ 4,448 41	$ 77,344 90

Amounts brought forward.....	$ 4,448 41	$ 77,344 90
To J. J. McManmon, for bouquets	17 00	
N. E. Bunting Co., for ensign for Memorial Building.....	6 75	
O'Donnell & Gilbride, for decorations, cuspidores, glasses, etc.....	164 07	
S. N. Patterson, for decorating City Hall.....	15 00	
Patten & Co., for floral design	16 00	
Charles F. Young, for decorating Memorial Hall.....	15 00	
Patrick Brady, for reseating chair.....	75	
L. F. Kittredge & Son, for labor.....	6 63	
Samuel E. Snow, for mason work and material.....	438 68	
E. A. Wilson Agt., for coal...	14 66	
Appleton National Bank, for rent of safety deposit box..	50 00	
John H. Harrington, for expenses as Clerk of Sinking Fund Commission.....	20 10	
Joseph Peabody Agt., for insurance.....	123 81	
E. M. Tucke, for insurance....	250 00	
George B. Tilton, for redressing and releading monument and labor on Memorial Building steps.....	65 00	
C. W. Whidden, for services as expert accountant.....	135 00	
Commonwealth of Massachusetts, for ¼ liquor license fees, for 1896.....	38,135 50	
Mrs. W. J. Johnson, badges..	17 50	
P. Kelly, for refreshments...	19 75	
Lakeview Park, for entertainment at Mountain Rock....	413 75	
Arthur McQuade, for labor....	10 00	
Edwards Cheney, for labor on jury list.....	35 00	
J. P. O'Hare and J. Pendergast, for expenses of Committee on Baths.....	10 75	
Amounts carried forward.....	$ 44,429 11	$ 77,344 90

Amounts brought forward...	$ 44,429 11	$ 77,344 90
To Alvah S. Baker, for services at investigation of Street Committee.....	9 10	
F. E. Rollins, for typewriting and services as stenographer at investigation of Street Committee.....	298 22	
J. H. Sparks, for carriage hire	15 70	
Charles R. Wood, for expert testimony at investigation of Street Committee.....	50 00	
Edward J. Carroll, for expert testimony, (Boiler Investigation).....	15 00	
T. F. Welch, for expert testimony, (Boiler Investigation)	10 00	
F. E. Rollins, for typewriting and services as stenographer (Boiler Investigation).....	35 28	
SUNDRY EXPENSES JULY 4th:		
Appropriation for Public Buildings, for labor on grand stands.....	241 04	
James J. Quinn, for services and expenses as Clerk of Committee.....	165 22	
Richard A. O'Connell, for services as Clerk of Committee	24 00	
Howe Lumber Co., for lumber	264 98	
S. M. Patterson, for decorating City Hall.....	15 00	
Charles F. Young, for decorating Memorial Building..	25 00	
Lowell Electric Light Co., for lighting band stands.....	2 50	
E. J. Borjes, for services of band.....	118 00	
Amounts carried forward.....	$ 45,718 15	$ 77,344 90

Amounts brought forward.....	$ 45,718 15	$ 77,344 90
PRINTING AND ADVERTISING JULY 4th:		
To Campbell & Hanscom.....	19 33	
Courier-Citizen Co.....	15 00	
Chelmsford Tribune.....	1 57	
Daily News Job Print.....	28 50	
Daily News Co.....	10 50	
H. V. Huse.....	51 00	
Lowell Daily Sun.....	17 56	
Lepine & Co.....	5 00	
Morning Mail Co.....	41 35	
Vox Populi Press.....	12 00	
Walter S. Simons, for posting	45 00	
P. H. Heelon, for carriage hire	25 00	
J. H. Sparks, for carriage hire	2 00	
James Leach, for teaming....	27 10	
D. F. Lyons, for teaming.....	67 75	
Wm. Roberts, for teaming....	8 00	
E. A. Simpson, for teaming....	12 00	
G. E. Stanley, for teaming....	25	
John Sullivan, for teaming...	10 00	
American Express Co., for transportation.....	6 23	
Boston and Maine Railroad, for transportation.....	25	
		46,123 54
Total Expenditure for the year 1896.....		$123,468 44

TRANSFERS.

To Appropriation for Extension of Moody Street.....	$ 5,000 00	
Appropriation for City Cemeteries.....	1,000 00	
Appropriation for Health....	10,000 00	
Appropriation for Lighting...	2,500 00	
Appropriation for Roads and Bridges.....	35,000 00	
		53,500 00
		$176,968 44

PAUPERS.

Appropriation.	$ 65,000 000	$ 65,000 00

RECEIPTS.

From Sundry Appropriations, for wood, as follows:		
Schools.	$ 658 73	
Roads and Bridges.....	29 28	
Fire Department.....	44 47	
Lighting.	11 40	
Reserved Fund.....	26 50	
Soldiers Relief, for aid rendered sundry persons.....	44 50	
Commonwealth of Massachusetts, for support of paupers (State Cases).....	3,165 58	
Commonwealth of Massachusetts, for temporary support of paupers (State Cases)....	480 50	
Commonwealth of Massachusetts, for burial of paupers (State Cases).....	440 00	
Commonwealth of Massachusetts, for aid rendered Bridget Cunningham.....	41 43	
Commonwealth of Massachusetts, for overdraft.....	6 50	
County of Middlesex, for aid rendered sundry persons....	156 86	
Amounts carried forward.....	$ 5,105 75	$ 65,000 00

Amounts brought forward.....	$ 5,105 75	$ 65,000 00
Cities and Towns, for aid rendered sundry persons as follows:		
From Boston.....	161 60	
Chicopee.....	121 50	
Fitchburg.....	2 52	
Fall River.....	83 00	
Gloucester.....	3 50	
Haverhill.....	9 50	
Lawrence.....	166 49	
Lynn.....	23 00	
Marlborough.....	13 00	
Medford.....	26 00	
Newton.....	27 25	
Newburyport.....	12 71	
North Adams.....	30 86	
Quincy.....	80 20	
Salem.....	47 35	
Somerville.....	145 43	
Springfield.....	6 64	
Worcester.....	5 06	
Amesbury.....	60 00	
Andover.....	2 25	
Billerica.....	82 11	
Chelmsford.....	51 31	
Clinton.....	96 20	
Concord.....	30 64	
Dracut.....	25 40	
Framingham.....	53 00	
Hopkinton.....	1 50	
Hudson.....	3 50	
Maynard.....	44 00	
Melrose.....	34 29	
Millbury.....	3 00	
Natick.....	60 00	
Needham.....	6 00	
Northfield.....	2 50	
North Andover.....	6 00	
North Brookfield.....	3 00	
Randolph.....	67 00	
Rockland.....	5 00	
Shirley.....	3 50	
Stoughton.....	51 50	
Stowe.....	14 35	
Amounts carried forward.....	$ 6,777 41	$ 65,000 00

Amounts brought forward.....	$ 6,777 41	$ 65,000 00
From Templeton.....	10 00	
Westford.....	74 59	
Winchester.....	6 50	
Wm. H. Anderson, for support of Hannah Penniman at Almshouse.....	65 36	
Est. F. H. Penniman, for support of Hannah Penniman at Almshouse.....	65 36	
Clara D'Armour, for support of Alice D'Armour at Worcester	167 14	
F. A. Buttrick, Guardian, for support of David Moore at Almshouse.....	130 72	
Jeremiah Crowley, Guardian, for support of Ann McLaughlin at Almshouse.....	169 92	
Mrs. F. E. Dunlap, for support of Lusylvia T. Bartlett at Danvers.....	169 92	
Horace Ela, Guardian, for support of Michael Fallon at Almshouse.....	30 00	
Edward Fletcher, for support of Helen Fletcher at Almshouse.....	78 42	
John A. Fletcher, for support of Helen Fletcher at Almshouse.....	78 42	
Michael Hennessy, for support of Mary Hennessy at Almshouse.....	40 25	
Est. Margaret Ingham, for support at Worcester.....	22 02	
James Judge, for support of Bridget Judge, at Almshouse	9 00	
Est. Abram Kershaw, for support of Hannah Kershaw at Danvers.....	446 62	
Lawrence Manchester, for support of Morrison C. Manchester at Worcester.....	75 42	
Est. Mrs. J. Neal, for support of Jos. Neal at Almshouse..	130 72	
Amounts carried forward.....	$ 8,547 79	$ 65,000 00

Amounts brought forward.....	$ 8,547 79	$ 65,000 00
From John Pearson, for support of Hannah Pearson at Danvers	42 71	
John J. Pickman, Guardian, for support of Mary A. Rand, at Worcester.....	137 45	
Isaac Sprague, for support of Alavilda Bailey at Danvers	169 92	
A. A. Sawyer, for support of John C. Tolman at Danvers	54 79	
Fred Varin, for support of Felicite Morinne at Worcester.....	38 07	
Fred S. Geer, for support of Fred A. Geer at Danvers...	169 92	
Jennie F. Woodward, for support of George F. Woodward at Danvers.....	169 92	
Jennie Whittier, for support of John Whittier at Worcester.....	83 10	
Wm. Woodies, for support of Samuel B. Tallant at Almshouse.....	65 89	
Martin J. Courtney, for state aid of T. Doyle, M. Scully and Wm. Braslow, use of ambulance, telephone, etc.....	103 86	
Albert Pinder, for sale of farm products.....	880 00	
Charles H. Kimball, for use of telephone.....	3 25	
Charles H. Ricker, for use of telephone.....	2 95	
Harry R. Rice, for carrots.....	3 50	
Talbot Dyewood and Chemical Co., for carboys.....	15 00	
Lucy M. Kittredge, cash returned to Treasury.....	64 00	
Margaret Weston, cash returned to Treasury.....	21 00	
Merrimack Clothing Co., for overdraft.....	22 50	
Martin & Langley, for rags and lead.....	15 95	
Amounts carried forward.....	$ 10,611 57	$ 65,000 00

Amounts brought forward.....	$ 10,611 57	$ 65,000 00
To N. E. Tel. and Teleg. Co., for overdraft.....	25	
		10,611 82
		$75,611 82

TRANSFERS.

From Appropriation for Interest	$ 15,000 00	
Corporation Tax.....	10,000 00	
		25,000 00
		$100,611 82

EXPENDITURES.

PAID for SERVICES:

To Martin J. Courtney, Secretary	$ 1,300 00	
Cornelius E. Collins Superintendent Almshouse.....	93 02	
Albert Pinder, Superintendent Almshouse.....	1,896 09	
James J. Quinn, Chaplain and Teacher at Reform School..	45 94	
Wm. A. Arnold, Chaplain and Teacher at Reform School...	39 35	
Sundry persons, for labor.....	8,147 95	
		$ 11,522 35

Paid for FUEL:

To D. W. Horne & Son.....	$ 4,113 79	
Wm. E. Livingston.....	186 12	
E. A. Wilson Agt.....	316 64	
		4,616 55

Paid for HAY, GRAIN, GROCERIES, PROVISIONS, ETC.:

To Blake Bros.....	$ 209 92	
Blake & Wood.....	82 34	
Amounts carried forward.....	$ 292 26	$ 16,138 90

Amounts brought forward	$ 292 26	$ 16,138 90
To Est. Jos. Evans	110 00	
G. M. Foster	501 71	
Wm. E. Livingston	5,489 63	
Joseph Miller	16 85	
T. J. McDonald	22 20	
Henry Parker	30 00	
E. S. Sherman & Co	50 25	
Alba G. Stiles	28 40	
E. N. Wood & Co	40 05	
Fred M. Barney & Co	77 56	
Sylvanus Bartlett	5 60	
F. M. Bill	3,822 14	
G. J. & D. Bradt	235 00	
P. J. Brady	351 69	
W. H. Brown	46 04	
Buttrick & Co	11 67	
D. W. Clement	12 00	
S. K. Dexter	1,924 22	
H. W. Erdis	3 50	
Fleischman & Co	89 40	
J. J. Gallagher	69 00	
Henry Hatch	255 24	
W. H. I. Hayes	398 94	
J. D. Hartwell & Co	29 22	
Haynes, Hanchett & Co	140 63	
Martin L. Hall & Co	246 98	
W. A. Ingham & Co	89 60	
Kilpartrick Bros	70 07	
P. Keyes, Jr	148 21	
Wm. A. Lang	141 26	
Miller Bros	267 97	
A. McDonald	18 94	
Wm. Nichols & Co	281 13	
H. E. Noyes & Son	150 50	
Andrew Nimmo, Trustee	10 50	
T. M. O'Neil & Co	124 57	
S. C. Patrick	5 00	
George E. Putnam	130 33	
S. B. Palmer	743 82	
Henry S. Perham	38 38	
D. A. Raynoul	24 72	
O. B. Ranlett	51 84	
Savage Bros	53 20	
Simpson & Rowland	336 45	
Amounts carried forward	$ 16,986 67	$ 16,138 90

Amounts brought forward	$ 16,986 67	$ 16,138 90
To Arthur H. Slater	35 00	
Caleb L. Smith	188 94	
George M. Teel	7 55	
C. G. Thurston	8 00	
United States Tea Co.	22 00	
George Yapp	3 75	
Allen Bros.	24 75	
Wm. J. Burbeck	41 15	
M. Cameron	438 09	
Michael Corbett	845 24	
D. J. Donovan	97 92	
Howe & Marden	10 50	
L. W. Hall & Co.	27 10	
H. J. Johnson	13 47	
Jewett & Swift	48 00	
George F. Libby	122 50	
New Washington Market	32 06	
New England Market	1,288 78	
D. L. Page Company	25 69	
H. C. Pearson	384 05	
Public Market and Packing Co.	2,827 35	
A. H. Park & Sons	35 40	
M. B. Randlett & Co.	8 59	
Bert Smithson	178 52	
J. Linnel Shay	1 44	
George Teel	136 73	
F. A. Tuttle	1,217 99	
B. F. Witham	716 81	
Charles W. Wilder	357 75	
		$ 26,131 79
Paid for CLOTHING, DRY GOODS, ETC.:		
To Boott Cotton Mills	$ 73 20	
Thomas P. Boulger	258 32	
Boulger & McOsker	16 25	
Willard A. Brown	68 98	
James W. Cassidy	49 74	
Cook, Taylor & Co.	740 90	
James E. Gorman	28 75	
T. D. Hartford	520 70	
A. M. Huntoon & Co.	107 90	
Rose A. Jordan	11 80	
Amounts carried forward	$ 1,876 54	$ 42,270 69

Amounts brought forward.....	$ 1,876 54	$ 42,270 69
To George L. Lawson.....	29 66	
Lowell Rubber Co.....	45 64	
Merrimack Clothing Co.....	181 50	
C. A. Mitchell & Co.....	333 42	
O'Donnell & Gilbride.....	465 64	
O'Hearn & Dowd.....	82 35	
O'Sullivan Bros.....	24 00	
A. G. Pollard & Co.....	417 93	
Putnam & Son.....	103 20	
J. E. Shanley.....	41 81	
Shaw Stocking Co.....	141 71	
J. M. Washburn.....	33 00	
		3,776 40
Paid for DRUGS, MEDICINES, ETC.:		
To C. F. Blanchard.....	28 90	
F. H. Butler & Co.....	60	
Charles E. Carter.....	17 93	
Carleton & Hovey.....	385 07	
Jno. E. Cassidy & Son.....	403 50	
Ellingwood & Co.....	30 43	
F. C. Goodale.....	8 35	
		874 78
Paid for SUNDRIES AT ALMSHOUSE:		
To Appropriation for Public Buildings, for labor and material.....	$ 255 06	
Appropriation for Water Works, for water.....	1,038 65	
C. E. Collins, for sundry expenses.....	12 55	
Albert Pinder, for sundry expenses.....	201 89	
Town of Chelmsford, taxes of 1896.....	44 00	
Lowell and Suburban Street Railway, for tickets.....	2 00	
Lowell Gas Light Co., for gas	738 90	
Amounts carried forward.....	$ 2,293 05	$ 46,921 87

Amounts brought forward.....	$ 2,293 05	$ 46,921 87
To N. E. Tel. and Teleg. Co., for service.....	94 38	
W. U. Teleg. Co., for service	25	
A. B. Adams, for chestnut posts.....	17 60	
Burnham & Davis, for lumber	382 16	
Howe Lumber Co., for lumber	195 69	
Amasa Pratt & Co., for lumber	21 28	
Pratt & Forrest, for lumber..	27 33	
Sturtevant & Galer, for table legs.....	3 60	
W. A. Tedford, for doors and screens.....	44 75	
Charles E. Adams, for paint, tools and hardware.....	208 77	
W. T. S. Bartlett, for hardware and tools.....	71 37	
Boutwell Bros., for iron.....	14 75	
Henry C. Girard, for hardware and tools.....	399 84	
Thompson Hardware Co., for hardware and tools.....	19 70	
Charles C. Atwood, for filing saws.....	60	
H. R. Barker Manfg. Co., for material, lights, labor, etc..	16 75	
T. Costello & Co., for pipe, fittings and labor.....	161 37	
Crawford Laundry Machinery Co., for labor and material..	16 60	
W. W. Carey, for pulley.....	1 12	
Derby & Morse, for bells, plates, switches, wire, labor etc.....	8 05	
Joseph Dextra, for sharpening clippers.....	1 75	
Drury & Green, for pipe, fittings and labor.....	30 93	
Farrell & Conaton, for pipe, fittings and labor.....	72 59	
Josiah Gates & Sons, for belting, hose and lacing.....	18 43	
S. H. Jones, for pipe, fittings and labor.....	7 79	
Amounts carried forward.....	$ 4,130 50	$ 46,921 87

Amounts brought forward.....	$ 4,130 50	$ 46,921 87
To Joel Knapp & Son, for bolts, plates and washers.....	15 04	
Lowell Scale Co., for repairing scales.....	28 00	
Lowell Wire Works, for door and window guards.....	15 08	
Martin and Langley, for labor and material.....	22 60	
A. F. Nichols, for castings....	50	
A. Nourborn, for collars, shafting and labor.....	6 15	
O. A. Richardson's Sons, for filing saws.....	75	
Scannell & Wholey, for castings.....	31 15	
Joseph Sweeney, for pipe, fittings, labor, etc.....	1,046 25	
H. H. Wilder & Co., for kettles, pans, pails, grates, etc.	34 35	
John F. Bowditch, for brushes	31 00	
John J. Cluin, for clock and spectacles.....	25 25	
Columbian Insecticide Co., for insecticide.....	69 67	
C. B. Coburn & Co., for candles, oil, lanterns, soap, paint, etc	271 29	
John A. Clark, for brooms and baskets.....	27 00	
John Cross, for awnings.....	18 00	
F. H. Dickinson, for soap.....	42 00	
W. A. Dickinson, for soap.....	246 22	
J. F. Fuller & Co., for soap...	7 50	
C. H. Frost, for spectacles and cases.....	10 62	
French & Puffer, for brushes, baskets and waste.....	57 60	
Daniel Gage, for ice.....	329 00	
J. J. Gaynor & Co., for mattresses and repairing.....	24 25	
E. Hapgood & Co., for mattresses.....	10 00	
Jordan & Christie, for brushes	13 50	
A. L. Kittredge & Co., for paper, hangings, paint, putty, turpentine, etc.....	342 48	
Amounts carried forward.....	$ 6,855 75	$ 46,921 87

Amounts brought forward.....	$ 6,855 75	$ 46,921 87
To John F. Leland, for carrots, vinegar and exterminator..	44 25	
Leighton Bros., for kitchen furniture.....	71 21	
Wm. P. Miller & Co., for axle grease.....	3 00	
David C. Mann, for soap stock	16 41	
James E. Mitchell, for fire extinguisher.....	10 00	
Middlesex Steam Laundry, for felt.....	12 56	
M'Kissock Steam Carpet Cleaning Works, cleaning carpets	3 80	
N. E. Soap Co., for soap.....	38 45	
Norfolk Manufacturing Co., for soap.....	31 65	
Offutt & Pierce, for crockery and furniture.....	67 00	
O'Donnell & Gilbride, for furniture, carpets, etc.....	679 36	
F. W. Puffer & Co., for brushes and dusters.....	20 16	
Robertson & Co., for flower pots.....	36 28	
Royal Cross Chemical and Odorless Cabinet Co., for disinfectant.....	6 00	
Robinson & Foster, for Germol	7 50	
Alfred Spear's Sons & Co., for paint.....	24 00	
Singer Manufacturing Co., for exchange of sewing machines.....	40 00	
W. H. Spalding & Co., for brushes, glue, frieze, moulding, labor, etc.....	11 66	
Talbot Dyewood and Chemical Co., for ammonia, brimstone, chloride lime, etc.....	185 96	
Henry F. Whiting, for leather	3 25	
F. P. Coggeshall, for pens....	3 75	
Samuel G. Cooper, for stencils	4 50	
B. M. and M. E. Hutchins, for typewriting.....	5 00	
Amounts carried forward.....	$ 8,181 50	$ 46,921 87

Amounts brought forward	$	8,181 50	$	46,921 87
To Thomas H. Lawler, for stationery		25		
J. Merrill & Son, for stationery		23 35		
G. C. Prince & Son, for stationery		23 30		
J. L. Severance, for stamps		4 65		
Campbell & Hanscom, for subscription		4 34		
Courier-Citizen Co., for subscription		6 00		
Daily News Job Print, for printing		13 50		
Morning Mail Co., for printing		5 40		
Thompson & Hill, for printing		28 80		
Edward Cawley, for trap and stopple		7 38		
Conners Bros., for trap		2 47		
Philip Ginty, for slate, zinc and labor		46 57		
Wm. E. Livingston, for lime and fertilizer		40 26		
John L. Moulton, for mason work and material		70 37		
Staples Bros., for drain pipe and traps		12 58		
Samuel E. Snow, for mason work and material		95 70		
S. H. Weaver & Son, for roofing		59 90		
Wm. Henry Maule, for seeds, plants and subscription		46 96		
Patten & Co., for lilies and carnations		3 00		
W. K. Tibbetts, for plants, trees and shrubs		10 78		
Masten and Wells Fireworks Manufacturing Co., for fireworks		82 70		
J. J. Gaynor, for services as appraiser and secretary		32 50		
J. D. Hartwell, for services as appraiser		25 00		
Henry E. Parker, for services as appraiser		25 00		
Amounts carried forward	$	8,852 26	$	46,921 87

Amounts brought forward.....	$	8,852 26	$	46,921 87
To J. H. Sparks, for services as appraiser.....		17 00		
Ingham Bros., for killing hogs		28 50		
George F. Allen, for repairing harnesses, etc.....		100 28		
Laforest Beals, for harness..		50 00		
A. H. Cluer, for repairing harnesses, etc.....		81 70		
John J. Donnelly, for shoeing horses.....		7 50		
M. V. B. Libbey, for shoeing horses.....		159 50		
A. D. Mitten, for shoeing horses.....		2 50		
Fay Bros., & Hosford, for sleigh.....		30 00		
H. K. Ferrin, for exchange of wagons.....		210 00		
J. H. Swett, for repairing wagons.....		205 39		
A. W. Baker, for professional services.....		18 00		
W. A. Sherman, for professional services.....		8 00		
J. H. Sparks, for professional services and carriage hire...		14 00		
Hugh Walker, for professional services.....		3 00		
C. K. Miller, for mileage tickets.....		60 00		
Boston and Maine Railroad, for transportation and mileage ticket.....		37 70		
N. Y., N. H. and H. R. R. Co., for transportation.....		3 55		
				9,888 88
Paid on ACCOUNT OF DISPENSARY:				
To John F. Boyle, clerk.....	$	884 00		
O. L. Field, for services as appraiser.....		15 00		
Clinton L. Bruce, for plaster..		1 67		
Amounts carried forward.....	$	900 67	$	56,810 75

Amounts brought forward.....	$ 900 67	$ 56,810 75
To Charles E. Carter, for medicine.....	22 55	
John E. Cassidy & Son, for alcohol.	118 98	
Ellingwood & Co., medicine	47 38	
O. L. Field, for medicine.....	10 10	
Frank C. Goodale, for medicine.....	10 80	
Goodale & Co., for medicine...	1 00	
Frank P. Moody, for medicine.	104 60	
F. M. Bill, for sugar.....	18 70	
C. B. Coburn & Co., for oil, can, globes, etc.....	14 88	
Codman & Shurtlef, for instruments.....	2 91	
T. M. O'Neil & Co., for lard....	1 20	
Talbot Dyewood and Chemical Co., for borax, salicylic acid, etc.....	2 20	
R. L. Walker, for repairing battery.....	1 25	
Courier-Citizen Co., for printing.....	4 00	
Daily News Job Print, for printing.....	8 00	
G. C. Prince & Son, for Boston Daily Globe.....	12 96	
Gookin Bros., for reseating chair.....	1 25	
Boston and Maine Railroad, for transportation.....	36	
		1,283 79
Paid on ACCOUNT OF AMBULANCE:		
To Appropriation for Watering Streets, for assessments....	$ 14 54	
Appropriation for Water Works, for water.....	16 20	
Hugh Armstrong, driver.....	735 00	
George B. McKenna, driver...	430 70	
Dennis O'Neil, driver.....	45 00	
David Ready.....	780 00	
Amounts carried forward.....	$ 2,021 44	$ 58,094 54

Amounts brought forward.....	$ 2,021 44		$ 58,094 54	
To Charles H. Ricker, ambulance surgeon.....	125 92			
N. E. Tel. and Teleg. Co., for service.....	180 98			
N. E. Tel. and Teleg. Co., for rent of private line.....	38 65			
W. T. S. Bartlett, for lanterns and cord.....	7 70			
J. C. Bennett, for lock.....	1 25			
H. R. Barker Mfg. Co., for repairing harness holder.....	3 50			
W. A. Mack & Co., for repairing lantern.....	50			
A. L. Ready & Son, for grates, etc.....	3 35			
C. Zimmer, for fitting keys....	1 40			
John Cross, canvas stretchers	10 00			
James W. Cassidy, for cloth...	3 00			
George Faneuf, for splints....	18 00			
Joseph W. Griffin, for rubber boots.....	3 75			
Highland Steam Laundry, for laundering.....	15 01			
Lowell Laundry, for laundering.....	13 24			
Lowell Rubber Co., for repairing boots.....	1 25			
Wm. V. Mead, for laundering	4 74			
H. C. McOsker, for roller and labor.....	1 25			
A. G. Pollard & Co., for cotton	4 40			
C. B. Coburn & Co., for wicks	60			
G. K. Hammond, for polish..	50			
Campbell & Hanscom, for subscription.....	4 34			
T. M. Bolton, for repairing harness.....	4 25			
C. Charron, for blacksmithing	2 50			
J. C. Donovan, for repairing harness.....	2 50			
O. K. Dexter, for shoeing horse and repairing ambulance..	83 75			
H. F. Ebert, for repairing harness.....	5 80			
Amounts carried forward.....	$ 2,563 57		$ 58,094 54	

Amounts brought forward.....	$ 2,563 57	$ 58,094 54
To C. H. Hanson & Co., for blankets, dusters, clipping horse, etc.....	9 50	
C. H. Hanson, Jr., for blanket, snap and repairing.....	7 40	
C. C. Thompson, for shoeing horses.....	19 85	
Henry Reynolds, for shoeing horse.....	1 75	
Sawyer Carriage Co., for repairing ambulance.....	75 51	
Blake & Wood, for hay.....	57 44	
Wm. E. Livingston, for hay and straw.....	12 56	
Alba G. Stiles, for oats.....	2 70	
E. S. Sherman & Co., for oats and straw.....	66 70	
Edward N. Wood & Co., for oats.....	58 60	
O. D. Wilder, for oats.....	15 30	
Hugh Armstrong, for soap and brush.....	1 10	
		2,891 98
Paid for SERVICES OF PHYSICIANS OUT OF ALMSHOUSE:		
To W. G. Eaton.....	$ 240 00	
A. J. Halpin.....	282 96	
Amasa Howard.....	10 50	
Wm. A. Johnson.....	184 66	
John E. Maguire.....	12 00	
J. F. Mulcahy.....	260 00	
L. J. McDonough.....	235 00	
Charles H. Ricker.....	244 35	
T. G. Waller.....	25	
		1,469 72
Paid for COFFINS, INTERMENTS, ETC.:		
To Appropriation Public Buildings.....	$ 554 50	
Amounts carried forward.....	$ 554 50	$ 62,456 24

Amounts brought forward.....	$	554 50	$	62,456 24
To Joseph Albert.....		115 00		
Arnedee Archambault.....		23 00		
J. W. Brooks.....		54 00		
Peter Davey.....		38 00		
J. H. McDermott.....		14 00		
C. H. Molloy.....		97 00		
James F. O'Donnell.....		66 00		
S. Renaud.....		6 00		
John F. Rogers.....		18 00		
C. M. Young & Co.....		3 00		
				988 50
Paid for SUNDRIES AT WOOD YARD:				
To Sundry persons, for labor.....	$	1,496 82		
J. F. Bateman, for surveying wood.....		16 54		
Edward Cawley, for wood.....		29 53		
Edward Harrigan, for wood..		88 31		
D. W. Horne & Son, for coal..		1,213 73		
E. J. Noyes, for wood.....		63 00		
Wm. T. Patten, for wood.....		93 77		
E. A. Simpson, for teaming wood.....		159 00		
E. A. Wilson Agt., for coal...		313 78		
J. S. Walton, for wood.....		315 00		
Henry C. Girard, for hardware		2 25		
C. C. Atwood, for filing saws..		7 15		
Jerry Ryan, for stove pipe and labor.....		2 00		
T. M. Bolton, for repairing harness.....		1 10		
H. F. Ebert, for horse cover..		3 50		
M. V. B. Libbey, for shoeing horses.....		22 00		
Henry Reynolds, for shoeing horses.....		21 25		
J. H. Swett, for repairing wagon.....		35 10		
C. C. Thompson, for repairing wagon.....		50		
Frank E. McNabb, for bandages, liniment, sponges, etc.		7 45		
Amounts carried forward.....	$	3,891 78	$	63,444 74

Amounts brought forward.....		$ 3,891 78	$ 63,444 74	
To N. E. Market, for matches and oil.....		3 55		
Smith & Gould, for lotion.....		3 00		
Wm. E. Livingston, for oats, corn and meal.....		14 12		
Joseph Miller, for oats, corn and hay.....		12 72		
E. S. Sherman & Co., for grain		19 03		
A. G. Stiles, for oats, corn, hay and meal.....		10 24		
				3,954 44
Paid for SUPPORT OF SUNDRY PERSONS OUT OF ALMSHOUSE :				
To Commonwealth of Massachusetts, for support of sundry persons:				
In Danvers Lunatic Hospital. ... .$	162 50			
Hospital for Dipsomaniacs.	30 65			
State Almshouse....	1,372 20			
State Farm.....	590 80			
School Feeble Minded	84 96			
Taunton Lunatic Hospital.....	32 96			
Westborough Insane Hospital.....	32 96			
Worcester Lunatic Hospital.....	1,142 14			
		$ 3,449 17		
Children's Hospital.....		34 75		
Danvers Lunatic Hospital....		1,970 88		
Lowell Hospital Association..		71 14		
Lowell General Hospital.....		8 57		
Massachusetts School for Feeble Minded.....		339 38		
Medfield Insane Asylum.....		199 60		
Massachusetts Hospital for Dipsomaniacs and Inebriates ates.		20 89		
Northampton Lunatic Hospital		93		
Amounts carried forward.....		$ 6,095 31	$ 67,399 18	

Amounts brought forward.....	$ 6,095 31		$ 67,399 18	
To Sisters of Charity, (Lawrence)	390 00			
Sisters of Charity, (Salem)..	679 26			
St. Peter's Orphanage.....	863 16			
St. John's Hospital.....	4,589 50			
Taunton Lunatic Hospital....	102 21			
Westborough Insane Asylum..	1,022 38			
Worcester Insane Asylum....	509 78			
Worcester Lunatic Hospital..	5,495 41			
			19,747	01
Paid Cities and Towns for AID RENDERED SUNDRY PERSONS, as follows:				
To City of Boston.....	$ 615 54			
Chelsea.....	10 00			
Fall River.....	290 25			
Haverhill.....	53 85			
Lawrence.....	29 60			
Lynn.....	183 45			
Malden.....	37 80			
New Bedford.....	23 35			
Newton.....	116 70			
Newburyport.....	139 95			
Salem.....	114 69			
Springfield.....	77 01			
Waltham.....	24 00			
Worcester.....	23 63			
Town of Andover.....	17 28			
Billerica.....	146 81			
Chelmsford.....	111 22			
Dracut.....	25 85			
Hudson.....	1 00			
Methuen.....	12 00			
North Andover.....	25 43			
Westford.....	9 00			
			2,088	41
Paid SUNDRY PERSONS OUT OF ALMSHOUSE:				
To Samuel Amadon, cash.....	$ 57 15			
Mrs. Aaron L. Bent, for board of Jane Wright.....	11 72			
Amounts carried forward.....	$ 68 87		$ 89,234	60

Amounts brought forward..... ...	$ 68 87	$ 89,234 60
To W. G. Buck, for board of Jane Wright.....	23 14	
Winnifred Byrne, cash.....	12 00	
Anasatsia Brown, for board of Brown Children.....	72 00	
Margaret Clark, cash.....	5 00	
Catharine Cummiskey, cash..	96 00	
Patrick J. Cassidy, cash.....	30 00	
George L. Cady, for rent for Wm. Latham.....	5 00	
Lois E. Dickey, for board of John Cramer.....	13 50	
James Devine, cash.....	96 00	
Mrs. Felix Donnelly, board of Edward Johnson.....	60 00	
Mrs. S. M. Dickey, cash.....	102 00	
Lucretia Freeman.....	72 00	
Antoinette C. Frisbee, for board of Wm. Bagley.....	27 14	
Patrick Hand, for board of Kehoe Children.....	96 00	
W. A. Ingham, for rent for Katharine Johnson.....	18 00	
Rose Kiernan, for board of Kate and Maggie Kiernan..	130 00	
Mrs. James Lavelle, cash.....	96 00	
Jennie Lang, for board of Margaret C. Grant.....	47 56	
Charles McDermott, for board of John Hanley.....	96 00	
Kate McCashin, cash.....	120 00	
Mrs. Elijah Mixer, cash.....	78 30	
Patrick Murphy, for board of John and George Murphy..	120 00	
Mrs. M. McLean, for board of Marie Bowen.....	14 86	
Ann Murray, cash.....	70 00	
Caroline Olsson, cash.....	5 43	
Josiah Osborn, for board of David Willett.....	10 54	
Susan O'Grady, rent for Chas. McNulty.....	16 00	
Charles Riley, for care of Children of Daniel Riley....	28 00	
Amounts carried forward....	$ 1,629 34	$ 89,234 60

Amounts brought forward.....	$ 1,629 34	$ 89,234 60
To Mary F. Riley, for board of Terence O'Brien.....	60 00	
Sarah T. Richardson, cash....	60 00	
F. E. Saunders, for board of C. LeBaron.....	48 00	
Sarah J. Snow, for board of Jane Wright.....	66 87	
S. O. Sabine, for aid rendered Martha Hall.....	4 85	
Ellen Tully, cash.....	56 00	
Catharine Taylor, cash.....	20 00	
Mrs. E. W. Trueworthy, for board of Mrs. Elijah Mixer..	15 43	
Mary Tenary, for board of Annie Tenary.....	57 73	
Ella Witherell, cash.....	60 00	
Minerva White, cash.....	60 00	
Margaret Weston, cash.....	14 00	
Lydia Wilder, for board of Hermes Duval.....	4 75	
Lydia G. Whitten, cash.....	63 00	
		2,219 97
Paid for PROVISIONS, FUEL, ETC., on orders:		
To Allen Bros.....	$ 26 00	
Fred M. Barney & Co.....	36 00	
Barrett Bros.....	27 49	
P. J. Brady.....	55 50	
John H. Burke & Co.....	12 00	
S. W. Churchill.....	11 59	
Coffey Bros.....	108 00	
S. K. Chase.....	3 00	
Michael Corbett.....	81 00	
James J. Courtney.....	66 00	
James Dolan.....	27 00	
Charles M. Erskine.....	36 00	
P. J. Gallagher.....	36 00	
David Gerow.....	3 00	
J. J. Gilbride.....	3 00	
W. Girard.....	2 00	
J. D. Hartwell & Co.....	27 00	
Handley Bros.....	12 00	
Amounts carried forward.....	$ 572 58	$ 91,454 57

Amounts brought forward.....	$ 572 58	$ 91,454 57
To F. J. Joyce Est.....	29 00	
John J. Kelley.....	10 00	
P. Keyes, Jr.....	24 00	
Keefe Bros.....	15 00	
James F. Lyons.....	3 00	
George Lynch.....	16 00	
Edward Martin.....	108 00	
F. D. Munn & Son.....	10 00	
Miller Bros.....	33 00	
John McCluskey.....	21 00	
Wm. Nichols & Co.....	6 00	
New England Market.....	24 00	
O'Donnell Bros.....	9 00	
T. M. O'Neil & Co.....	18 00	
Pawtucket Cash Grocery.....	6 00	
Thomas F. Roche.....	60 00	
O. B. Ranlett.....	6 00	
Anthony Robinson.....	6 00	
M. J. Roughan.....	37 00	
D. A. Raymond.....	3 00	
J. P. Robinson.....	3 00	
G. E. Soper and Co.....	9 00	
P. P. Stiles & Co.....	14 00	
Stiles & Co.....	48 00	
M. A. Taylor.....	36 00	
John Whitty..... ...	12 00	
Thomas P. Boulger.....	5 75	
J. L. Chalifoux.....	6 00	
James E. Gorman.....	2 55	
E. Lavery.....	3 25	
O'Donnell & Gilbride.....	4 00	
O'Hearn & Dowd.....	9 00	
O'Sullivan Bros.....	32 00	
Owen Queenan.....	1 75	
		1,202 88
Paid for SUNDRIES OUT OF ALMSHOUSE:		
To James F. Walsh, Clerk.....	$ 994 81	
Nellie A. Keyes, Clerk.....	624 00	
Martin J. Courtney, for Sundry expenses.....	358 10	
Amounts carried forward.....	$ 1,976 91	$ 92,657 45

Amounts brought forward.....	$ 1,976 91	$ 92,657 45
To James F. Walsh, for telegram and transporting patient from Boston.....	2 00	
N. E. Tel. and Teleg. Co., for service.	127 94	
W. U. Teleg. Co., for telegrams	1 57	
Commonwealth of Massachusetts, assessment.....	20 00	
C. K. Miller, for railroad tickets.	402 35	
George O. White, for railroad tickets.	52 20	
Boston and Maine Railroad, tickets.	67 76	
Lowell and Suburban Street Railway Co., for tickets....	100 00	
Courier-Citizen Co., for printing.	47 75	
Daily News Job Print, for printing.	50 00	
Dumas & Co., for blank books and binding.....	20 00	
Lowell Daily Sun, for printing	34 15	
Lyon Platinum Pen Co., for pens.	1 50	
Thomas H. Lawler, for stationery, etc.....	21 20	
O. A. Libby, for printing.....	7 00	
L. J. Richards & Co., for map of Lowell.....	25 00	
J. L. Severance, for stamp....	2 00	
Sampson, Murdock & Co., for Fall River and Lawrence directories.....	40 00	
F. A. M. Tobin, for printing...	8 25	
Patrick Brady, for reseating chair.	75	
J. J. Gallagher, for snuff....	11 50	
R. J. Lang, for fly paper and medicine.	5 45	
Merrimack House, for refreshments.	3 00	
Amounts carried forward.....	$ 3,028 28	$ 92,657 45

Amounts brought forward.....	$ 3,028 28	$ 92,657 45
To Richardson's Hotel, for refreshments.....	32 90	
Bridget Donnelly, for labor...	2 50	
J. L. Chalifoux, for clothing..	1 98	
J. C. Donovan, for repairing harness.....	3 50	
H. J. O'Dowd & Co., for mat, robes, bells, exchange of sleighs, etc.....	45 50	
Sawyer Carriage Co., for repairing carriage.....	31 36	
Henry Reynolds, for shoeing horse.....	10 95	
J. E. O'Donnell, for carriage hire.....	29 00	
J. H. Sparks, for carriage hire	18 00	
American Express Co., for transportation.....	80	
		3,204 77
Total Expenditures for the year 1896.....		$ 95,862 22
Transferred to Appropriation for Roads and Bridges.....		2,000 00
		$ 97,862 22
Balance undrawn Dec. 31, 1896..		2,749 60
		$ 100,611 82

PAUPERS (Improvements at City Farm).

Received New England Mutual Life Insurance Co., loan.....	$ 19,000 00	
		$ 19,000 00

EXPENDITURES.

Paid for SUNDRIES :

To Appropriations for Public Buildings, for labor and material.....	$ 1,446 18	
Fred W. Jenness, 3.103 acres of land @ $2,600.00 per acre.	8,327 80	
Harry Prescott Graves, for plans and specifications....	115 00	
Charles F. Varnum, for expenses to Boston.....	4 40	
Cyrus Barton, for stone work (contract).....	118 08	
C. F. Foss & Co., for mason work and material.....	540 61	
W. H. Fuller, for mason work and material.....	2,865 47	
F. O. White & Co., for mason work and material.....	376 32	
James Smith, for mason work and material.....	331 24	
D. M. Prescott, for plastering..	37 31	
Amount carried forward.....	$ 14,162 41	

Amount brought forward.....	$ 14,162	41
To Philip Ginty, for slating.....	158	31
Burnham & Davis, for lumber.	137	90
Holmes & Bray, for doors and windows.....	22	00
Howe Lumber Co., for lumber.	352	03
Wm. H. Kimball, for rail posts, balusters, etc.....	10	61
Amasa Pratt & Co., for lumber	56	54
Pratt & Forrest, for lumber...	42	46
Sturtevant & Galer, for brackets, etc.....	66	10
W. A. Tedford, for doors, windows and labor.....	238	55
W. L. Wedger & Co., for metal work.....	95	52
Charles E. Adams, for hardware.....	94	43
W. T. S. Bartlett, for hardware	7	43
Henry C. Girard, for hardware	32	70
Thompson Hardware Co., for hardware.....	52	22
H. R. Barker Mfg. Co., for pipe, fittings and labor.....	190	73
Joel Knapp & Son, for bracket, rods and plates.....	117	72
W. A. Mack & Co., for moulding and capping.....	201	50
James F. McElholm, for holders, sockets, switch, labor, etc.....	13	56
Joseph Sweeney, for pipe, fittings, labor, etc.....	740	50
F. J. Farr, for case, desk and tables.....	155	00
O'Donnell & Gilbride, for furniture.....	282	92
W. H. Spalding & Co., paper, moulding and labor.....	53	50
Wm. E. Livingston, for lime, brick and cement.....	837	94
Staples Bros., for pipe, bends, traps, etc.....	22	17
A. Nourborn, for labor.....		80
Amount carried forward.....	$ 18,145	55

Amount brought forward	$ 18,145 55	
To E. A. and A. T. Smith, for concrete.	124 52	
S. H. Weaver & Son, for repairing roof.....	4 00	
Wm. Roberts, for teaming....	3 00	
Total Expenditures for the year 1896.....		$ 18,277 07
Balance undrawn Dec. 31, 1896...		722 93
		$ 19,000 00

POLICE.

Balance undrawn Jan. 1, 1896....	$ 2,560 69		
Appropriation.....	95,000 00		
		$ 97,560 69	

RECEIPTS.

From Appropriation for Schools, for services of officers.....	$ 6 88		
Reserved Fund, for services of officers.....	2,566 98		
George R. Davis, superintendent, for services of officers, use of telephone, sales of cloth, etc.....	4,715 41		
H. G. Cushing, for fines and forfeitures.....	1,625 20		
John M. Fisk, for fines.....	125 00		
John R. Fairbarn, for fines....	30 00		
J. F. Savage, for fines, fees and forfeitures.....	6,479 28		
E. H. Rollins & Son, on loan..	10,000 00		
		25,548 75	
		$ 123,109 44	

TRANSFERS.

From Appropriation for Fire Department.....	$ 982 89		
Corporation Tax.....	5,500 00		
		6,482 89	
		$ 129,592 33	

EXPENDITURES.

Paid for SERVICES :

To George R. Davis, Superintendent	2,000 00	
James A. McQuade, Deputy Superintendent	1,400 00	
William B. Moffatt, Deputy Superintendent	1,400 00	
Samuel P. Hadley, Police Justice	100 00	
John A. Faulkner, Commissioner (chairman)	1,200 00	
Harry R. Rice, Commissioner	1,000 00	
Lawrence J. Smith, Commissioner	430 57	
Peter J. Brady, Commissioner	569 43	
Joseph Smith, Clerk	1,200 00	
Sundry Persons, for services as officers	100,758 85	
Sundry Persons, for labor	5,724 29	
		$ 115,783 14

Paid for FUEL:

To Appropriation for Roads and Bridges, for labor	$ 43 13	
D. W. Horne & Son, for coal	705 53	
Thomas Plunkett, for wood	3 58	
		752 24

Paid for SUNDRIES:

To Appropriation for Watering Street, for assessments	$ 9 36	
Appropriation Public Buildings, for labor and material	250 00	
Appropriation for Water Works, for water	336 42	
Lowell Gas Light Co., for rent of range	3 00	
Lowell Gas Light Co., for gas	342 60	
Lowell Electric Light Co., for lights	210 95	
Amounts carried forward	$ 1,152 33	$ 116,535 38

Amounts brought forward.....	$ 1,152 33	$ 116,535 38
To N. E. Tel. and Teleg. Co., for underground construction for signal system.....	286 77	
N. E. Tel. and Teleg. Co., for rental of private line from Jan. 1, 1896, to May 31, 1897	290 00	
N. E. Tel. and Teleg. Co., for service.....	264 84	
N. E. Tel. and Teleg. Co., for socket, wrench, cross arms, etc.....	131 33	
Postal Telegraph and Cable Co., for labor, socket, etc....	54 25	
George R. Davis, for travelling expenses, postage, etc.....	116 23	
Joseph Smith, for office expenses.....	30 35	
Thomas E. Allen, for travelling expenses.....	35 83	
Wm. G. Bumps, for transporting horse to Boston.....	1 25	
Michael J. Burns, for stationery, telegrams, car fares, etc.	25 47	
Charles Laflamme for travelling expenses.....	16 60	
Albert O. Hamel, for services as interpreter.....	3 00	
Frank N. Owen, for services as stenographer.....	5 00	
Henry F. Quinn, for services of D .J. Donohue, Esq.....	10 00	
Edward W. Trull, for clerical services.....	5 00	
Moses Collins, for labor.....	8 00	
Willard S. Hobbs, for labor...	87 50	
John Hosey, for labor.....	363 75	
George Lincoln, for labor....	26 25	
Thomas Mooney, for labor....	20 00	
Joseph McMahon, for labor...	24 50	
Peter McCormick, for labor...	169 00	
Michael Nealon, for labor.....	11 25	
John O'Connor, for labor.....	224 20	
James Russell, for labor.....	65 00	
Amounts carried forward.....	$ 3,427 70	$ 116,535 38

Amounts brought forward.....	$ 3,427 70	$ 116,535 38
To Walter I. Towne, for services.	12 55	
Holmes & Bray, for boxes....	7 50	
Howe Lumber Co., for lumber	1 34	
O. E. Averill, for blacksmithing	10 21	
American Bolt Co., for bolts..	36	
H. R. Barker Manfg. Co., for pipe, fittings and labor.....	170 29	
John H. Barry, for labor.....	1 75	
Boston Electric Co., for wire insulators, etc.....	324 90	
Derby & Morse, for tape, labor, etc.....	8 17	
Drury & Green, for labor.....	3 50	
Edes Manufacturing Co., for zincs, plates, etc.....	66 00	
Henry C. Girard, for hardware	24 69	
C. O. A. Grover, for stencil plate, brush and paint.....	90	
C. S. Knowles, for junction boxes, reel and wire.....	196 98	
Middlesex Machine Co., for pipe, fittings and labor.....	14 08	
C. H. McEvoy telephone cords	2 99	
McPhee & Co., for composition	48	
J. F. McElholm, for burners, carbon, lamps, wire, labor etc.....	142 29	
N. E. Gamewell Co., for Central office equipment.....	1,925 00	
N. E. Gamewell Co., for ink, ribbons, etc.....	131 35	
Pulsifer, Cook & Co., for register paper.....	103 35	
Redding, Baird & Co., for glass	6 80	
The Okonite Co., for cable, tape and reel.....	1,454 00	
Thompson Hardware Co., for instruments, scale, measure, etc.....	30 87	
Washburn & Moen Manufacturing Co., for wire.....	31 65	
H. H. Wilder & Co., for sprinkler, tees, pipe elbows, brackets, etc.....	54 15	
Amounts carried forward.....	$ 8,153 85	$ 116,535 38

Amounts brought forward.....	$ 8,153 85	$ 116,535 38
To C. Zimmer, for repairing vises, etc.	4 85	
G. J. and D. Bradt, for crackers	80 75	
Buttrick & Co., for tea, sugar, matches, etc.	10 01	
Carter & Sherburne, for liniment	2 00	
C. B. Coburn & Co., for oil, pails, hose menders, etc.	49 33	
Columbian Insecticide Co., for insect exterminator	15 00	
J. F. Fuller & Co., for elatol liniment	4 00	
W. H. Gibson, for hoof compound	2 00	
W. N.Goodell, for bon-ami, meal, salt, etc.	3 80	
Norfolk Manufacturing Co., for soap powder	4 55	
Talbot Dyewood and Chemical Co., for blue vitrial, sulphuric acid, etc.	116 29	
Adams & Co., for carpet, chairs, labor, etc.	84 46	
Henry W. Barnes, for cutting stripes	6 00	
Cook, Taylor & Co., for crash	2 00	
John J. Cluin, for clock and repairing	13 25	
A. L. Kittredge & Co., for bronze, shades and labor	60 27	
Middlesex Company, for cloth	776 29	
George A. Lovejoy, for painting	10 00	
Jennie A. McLean, for russett dressing	2 00	
Oak Hall Clothing Co., for helmets, etc.	112 50	
A. G. Pollard & Co., for blankets, ticking, etc.	11 22	
Robertson & Co., for remnants	2 75	
J. M. Washburn, for lineman's gloves, hose, etc.	14 00	
Amounts carried forward.....	$ 9,541 17	$ 116,535 38

Amounts brought forward.....	$ 9,541 17	$ 116,535 38
To Waterbury Button Co., for buttons.....	45 00	
Campbell & Hanscom, for printing and advertising...	76 50	
Courier-Citizen Co., for printing and advertising.....	370 00	
Daily News Co., for advertising	25 25	
Lepine & Co., for advertising	25 00	
Lowell Daily Sun, for advertising.....	54 00	
Morning Mail Co., for advertising.....	24 67	
Dumas & Co., for blank books	64 45	
W. J. Freeman, for photographs.....	26 50	
B. M. and M. E. Hutchins, for typewriting.....	70	
F. F. Lampron, for photographs.....	7 00	
O. A. Libby, for printing.....	3 50	
Thomas H. Lawler, for waste basket, stationery, etc.....	10 65	
Loupret's Studio, for photographs.....	4 00	
J. Merrill and Son, for Diaries	6 50	
A. Max Powers, Photographs	3 00	
G. C. Prince & Son, for diaries	140 00	
L. J. Richards & Co., for atlas of Lowell	25 00	
Smith Premier Typewriter Co., for typewriter supplies.....	31 25	
J. J. McManmon, for flowers..	2 50	
James P. Donohoe & Co., for refreshments.....	7 40	
Richardson's Hotel for refreshments.....	47 45	
Waverly House, for refreshments.....	6 00	
Charles E. Berry, for collar, hames, etc.....	27 50	
T. M. Bolton, for repairing harnessses.....	16 60	
A. H. Cluer, for spurs.....	75	
Cahill Bros, for shoeing horses	52 90	
Amounts carried forward.....	$ 10,645 24	$ 116,535 38

Amounts brought forward.....	$ 10,645 24	$ 116,535 38
To O. K. Dexter, for shoeing horse and repairing carriage.....	39 53	
John J. Donnelly, for shoeing horses.....	14 70	
J. C. Donovan, for oil, snaps and repairing harness.....	8 10	
H. F. Ebert, for blankets and repairing harnesses.....	93 03	
Fay Bros. & Hosford, for repairing carriages.....	181 31	
J. G. Favor, for harness.....	25 00	
A. R. Kingsbury, for shoeing horses.....	16 80	
M. V. B. Libby, for shoeing horses.....	86 65	
Sawyer Carriage Co., for sleigh and repairing carriages.....	126 81	
H. A. Winship, for cavalry equipments.....	175 75	
Charles Clapp, for horses....	540 00	
A. L. Macrae, for horse.....	150 00	
John Pratt, for clipping horses	7 00	
F. L. Crosby, for hay.....	133 98	
Charles R. Davis, for pasturing horse.....	1 50	
Fred A. Fox, for hay.....	193 68	
T. J. MacDonald, for oats.....	136 47	
A. G. Stiles, for oats.....	30 00	
E. S. Sherman & Co., for corn, salt, etc.....	63 46	
W. H. Wiggin, for straw.....	22 90	
E. N. Wood & Co., for oats....	176 74	
W. M. Jones, for professional services.....	7 00	
Charles H. Ricker, for professional services.....	5 00	
W. A. Sherman, for professional services.....	4 50	
Charles R. Wood, for professional services.....	63 50	
L. C. Hall, for storing wagons	12 00	
Murphy & Bingham, for carriage hire.....	32 00	
J. H. Sparks, for carriage hire	6 00	
Amounts carried forward.....	$ 12,998 65	$ 116,535 38

Amounts brought forward.....	$ 12,998 65	$ 116,535 38
TO Frank Dunlap, for teaming..	2 00	
American Express Co., for transportation.....	1 95	
Boston and Maine Railroad, for transportation.....	52 41	
Manchester and Concord, N. H., Express Co., for transportation.....	80	
N. Y., N. H. and H. R. R. Co., for transportation.....	1 14	
		13,056 95
Total Expenditures for the year 1896.....		$ 129,592 33

FIRE DEPARTMENT.

Appropriation	$ 115,000 00	
		$ 115,000 00

RECEIPTS.

From Appropriation for Sewers and Drains, for hose	22 50	
E. S. Hosmer, for cloth and labor	180 00	
J. F. Appleton, Manager, for use of covers and men	10 00	
F. C. Church, for hose	2 25	
Chas. H. Hanson & Co., for horses sold	173 70	
W. R. Sherburne, for rent of shed	20 00	
Talbot Dyewood and Chemical Co., for carboys	3 00	
E. H. Rollins & Son, loan	5,000 00	
		5,411 45
		$ 120,411 45
Transferred from Corporation Tax		15,000 00
		$ 135,411 45

EXPENDITURES.

Paid for SERVICES:

To Edward S. Hosmer, Chief Engineer	$ 2,000 00
Amount carried forward	$ 2,000 00

Amount brought forward	$ 2,000 00	
To James F. Norton, First Assistant Engineer and Secretary	525 00	
George F. Salmon, Assistant Engineer	400 00	
Edward Meloy, Assistant Engineer	400 00	
H. W. Burton, Assistant Engineer	400 00	
Permanent Firemen	75,968 46	
Call firemen	18,899 99	
		$ 98,593 45
Paid for FUEL:		
To Appropriation for Paupers for wood	$ 44 47	
D. W. Horne & Son, for coal	1,716 85	
Wm. Kittredge Co., for coal	104 75	
Wm. E. Livingston, for coal	85 50	
Rourke & Sullivan, for coal	71 52	
E. A. Wilson, Agt., for coal	102 00	
		$ 2,125 09
Paid for HAY, GRAIN, Etc.:		
To Ame & Co.	$ 32 40	
Horace P. Beals	104 16	
A. H. Brockway	177 88	
C. E. Doty	135 99	
G. M. Foster	1,653 03	
C. H. Hanson & Co.	187 30	
Wm. E. Livingston	386 89	
Joseph Marin	477 84	
T. J. McDonald	1,091 94	
Joseph Miller	494 91	
Alba G. Stiles	326 32	
A. G. Stiles & Co.	1 75	
Thorley Food Co.	42 00	
E. N. Wood & Co.	140 12	
		5,252 53
Paid for HORSES, CARRIAGES, HARNESSES, Etc.:		
To Charles Clapp	$ 135 00	
Amounts carried forward	$ 135 00	$ 105,971 07

Amounts brought forward.....	$ 135 00	$ 105,971 07
To C. H. Hanson & Co.....	1,157 30	
Robert Barris.....	14 90	
G. M. Beals.....	4 50	
Charles E. Berry.....	54 45	
F. J. Burlingham.....	16 00	
A. L. Butman.....	45 55	
A. H. Cluer	15 45	
J. C. Donovan.....	20 00	
H. F. Ebert.....	102 10	
W. J. Hallock.....	18 00	
Charles H. Hanson, Jr.....	8 65	
F. B. Hill & Co.....	17 25	
C. N. Perkins & Co.....	100 50	
George H. Taylor.....	2 20	
E. P. Bryant.....	130 78	
Fay Bros. & Hosford.....	1,226 69	
G. K. Hammond.....	2 50	
Manchester Locomotive Works	840 34	
Sawyer Carriage Co.....	482 45	
J. H. Swett.....	31 92	
Peter J. Boland.....	59 84	
Cahill Bros.....	232 35	
Owen J. Carney & Co.....	28 10	
Owen J. Carney.....	50 05	
John J. Donnelley.....	123 67	
Q. A. Foster.....	25 74	
M. V. B. Libbey.....	164 25	
C. H. McGraw.....	44 15	
A. D. Mitten.....	59 15	
J. S. Mosher.....	120 80	
A. Parsons.....	117 79	
Henry Reynolds.....	46 50	
J. W. Seeton.....	46 57	
C. C. Thompson.....	49 70	
W. H. Ward.....	25 50	
		5,620 69

Paid for SUNDRIES:

To Appropriation for Roads and Bridges, for trimming trees	$ 4 37	
Appropriation for Watering Streets, for assessments....	34 73	
Amounts carried forward.....	$ 39 10	$ 111,591 76

Amounts brought forward.....	$ 39 10	$ 111,591 76
To Appropriation for Water Works, for water.....	11,608 65	
Lowell Gas Light Co., for gas	1,007 90	
Lowell Electric Light Corp., for lights and power.....	77 53	
Lowell Electric Light Corp., for poles.....	65 75	
N. E. Tel. and Teleg. Co., for service.....	20 18	
N. E. Tel. and Teleg. Co., for poles and cross arms.....	35 42	
Postal Teleg. and Cable Co., for labor.....	34 25	
A. L. Brooks & Co., for lumber	1 60	
Burnham & Davis, for lumber	6 20	
Davis & Sargent, for sawdust	1 25	
Howe Lumber Co., for lumber	51	
Pratt & Forrest, for lumber..	4 12	
Amasa Pratt & Co., for lumber	83 72	
Charles E. Adams, for hardware, tools, etc.....	11 80	
American Bolt Co., for bolts..	42	
Boutwell Bros., for bolts, iron and steel.....	11 96	
Henry C. Girard, for hardware and tools.....	38 87	
Globe File Works, for files....	1 25	
A. F. Nichols, for castings....	1 05	
Thompson Hardware Co., for hardware and tools.....	146 45	
O. E. Averill, for blacksmithing.....	34 11	
H. R. Barker Manfg. Co., for pipe, fittings, labor, etc.....	253 61	
Boston Belting Co., for hose...	500 00	
Boston Woven Hose and Rubber Co., for hose and couplings.....	659 60	
Cornelius Callahan Co., for nozzles, repairing pipe, etc...	19 25	
Cornelius Callahan, for nozzles and respirators.....	61 00	
C. Clough for filing saw.....	20	
Amounts carried forward.....	$ 14,725 75	$ 111,591 76

Amounts brought forward.....	$ 14,725 75	$ 111,591 76
To Derby & Morse, for tubes, zincs, labor, etc.....	16 82	
Electric Equipment Co., for use of storage battery.....	300 00	
Electric Equipment Co., for storage battery plant and installing.....	1,500 00	
Farrell & Conaton, for pipe, fittings and labor.....	2 28	
Josiah Gates & Sons, for hose and labor.....	38 43	
S. H. Jones, for pipe, fittings and labor.....	12 30	
A. N. Kidder, for drills and spindles.....	4 55	
Alvin Lawrence, for oil, clock and repairing.....	21 45	
Lowell Belting Co., for cement, packing, belting, etc.....	9 81	
A. Ivan Laughton, for packing, labor, etc.	27 75	
D. Lovejoy & Son, for sharpening tools.....	1 00	
W. A. Mack & Co., for tin, solder, iron dipper, labor etc.	56 88	
McPhee & Co., for castings, composition, labor, etc.....	37 19	
N. E. Gamewell Co., for galvanometer, signal box, wire, labor, etc.....	768 18	
C. N. Perkins & Co., for snaps, extinguishers, repairing, etc.	30 50	
Rice & Co., for baskets, stall guards, wire cloth, etc.....	11 58	
S. C. Smith, for cap screws....	50	
J. W. Stewart, for labor and material.....	7 55	
David Taylor, for repairing saws.....	2 00	
Tucke & Parker, for lamps, labor, etc.....	2 00	
Union Iron Foundry, for castings.....	7 26	
Amounts carried forward.....	$ 17,583 78	$ 111,591 76

Amounts brought forward.....	$ 17,583 78	$ 111,591 76
To Useful Novelty Co., for feeder, boxes and salt brick.....	78 00	
Washburn & Moen Manufacturing Co., for wire.....	87 58	
C. Zimmer, for key.....	15	
F. M. Bill, for soda.....	126 00	
J. L. Barnard, for liniment....	5 25	
Charles E. Carter, for medicines and soap.....	37 95	
C. B. Coburn & Co., for brushes, benzine, glue, oil, lanterns, etc.....	446 63	
C. E. Collins, for brushes and mop handles.....	5 90	
W. A. Dickinson, for soap....	22 00	
Dole's Improved Remedy Co., for remedy.....	7 00	
W. H. Gibson, for hoof compound.....	14 75	
John H. Goodfellow, for saproshine.....	3 75	
S. F. Hayward & Co., for bottles, cork, gong, etc.....	92 43	
Charles Ingalls, for harness soap.....	24 00	
Leonard & Ellis, for oil.....	30 60	
John G. Lesure, for medicine..	12 00	
Lowell Rendering Co., for ammonia and soap.....	142 42	
Meyers Pultz Pomade Co., for cream.....	40 95	
James O'Brien, for medicine..	85	
Robinson & Foster, for germol	2 00	
Simpson & Rowland, for soda and matches.....	74 00	
W. H. Spalding & Co., for shades, labor, etc.....	17 55	
J. A. Spiers, for harness dressing.....	24 00	
Talbot Dyewood and Chemical Co., for ammonia, soda, vitriol, etc.....	121 96	
Adams & Co., for chairs and rug.....	11 60	
Amounts carried forward.....	$ 19,013 10	$ 111,591 76

Amounts brought forward..... ..	$ 19,013 10	$ 111,591 76
To Charles G. Braxmar, for insignia.....	8 00	
Frank Ben & Co., for pins....	8 75	
J. W. Cassidy, for crash, towels, soap, etc.....	74 50	
Durant & Rogers, for oil and repairing badges.....	1 45	
French & Puffer, for burners and chimneys.....	66	
Gookin Bros., for furniture...	33 60	
E. Hapgood & Son, for mattresses and repairing.....	78 65	
A. S. Jackson, for burners, globes, lanterns, brushes, chamois, etc..:.....	161 95	
Lowell Steam Carpet Cleaning Works, for cleaning carpets	9 41	
Leighton Bros., for chimneys and pitchers.....	2 10	
Middlesex Company, for cloth	225 89	
Edward F. Page & Co., for brooms.....	32 00	
A. G. Pollard & Co., for bedding.....	131 85	
Scripture's Laundry, for laundering.....	197 43	
Lowell Belting Co., for belting and lacing.....	1 02	
H. Thompson, for brooms.....	13 50	
Daily News Job Print, for printing.....	177 00	
E. P. Gerould & Co., for copying book.....	3 50	
J. Merrill & Son, for tags.....	1 40	
L. J. Richards & Co. for atlas of Lowell.....	25 00	
Lowell Trust Co., for damage to awning.....	8 00	
E. S. Hosmer, for travelling expenses, etc.....	438 76	
Merrimack House, for refreshments.....	22 10	
Wm. E. Livingston, for cement	3 45	
Charles Runels, for labor....	63	
Amounts carried forward.....	$ 20,673 70	$ 111,591 76

Amounts brought forward.....	$ 20,673 70	$ 111,591 76
To Staples Bros., for dualin, exploders and labor.....	9 24	
A. W. Baker, for professional services.....	58 00	
Charles E. Munn, for professional services.....	26 00	
W. A. Sherman, for professional services.....	34 50	
J. H. Sparks, for professional services and keeping horse..	84 00	
Jesse A. Viles, for professional services.....	115 00	
Charles R. Wood, for professional services.....	6 00	
Wm. H. Emery, for pasturing horses.....	40 86	
Lowell Institute for Savings, for rent of shed.....	60 00	
P. S. Webster, for storing sleighs.....	6 00	
C. H. Hanson & Co., for use of horse.....	138 00	
Murphy & Bingham, for carriage hire.....	8 00	
American Express Co., for transportation.....	12 85	
Manchester and Concord Express Co., for transportation	2 35	
N. Y. and B. Des. Ex. Co., for transportation.....	14 80	
Post Gardner Ex Co., for transportation.....	30	
Boston and Maine Railroad, for transportation.....	34 80	
N. Y., N. H. and H. R. R. Co., for transportation.....	4 13	
		$ 21,328 53
Total Expenditures for the year 1896.....		$ 132,920 29
Transferred to Appropriation for Police.....		982 89
		$ 133,903 18
Balance undrawn Dec. 31, 1896..		1,508 27
		$ 135,411 45

LIGHTING.

Balance undrawn Jan. 1, 1896...	$ 1,458 49	
Appropriation.....	70,000 00	
		$ 71,458 49

RECEIPTS.

From Lowell Electric Light Corp., for lights reported not burning.....	$ 503 30	
Town of Dracut, for lamp posts	21 25	
E. H. Rollins & Son, loan.....	5,000 00	
		5,524 55
		$ 76,983 04

TRANSFERS.

From Reserved Fund.....	$ 2,500 00	
Corporation Tax.....	6,500 00	
Appropriation for Interest....	492 16	
		9,492 16
		$ 86,475 20

EXPENDITURES.

Paid for LIGHTING PUBLIC BUILDINGS:		
To Lowell Electric Light Corp....	$ 962 74	
Lowell Gas Light Co.....	701 70	
		$ 1,664 44
Amount carried forward		$ 1,664 44

Amount brought forward.....		$ 1,664 44

Paid for LIGHTING STREETS:

To Sundry persons, for labor.....	$ 8,554 00	
Appropriation for Watering Streets, for assessments....	13 15	
Appropriation for Paupers, for wood.....	11 40	
Appropriation for Water Works, for water.....	12 60	
Globe Gas Light Co., for lighting.....	12,479 04	
Globe Gas Light Co., for copper lanterns.....	200 00	
Lowell Electric Light Corp., for lighting.....	55,760 30	
Lowell Electric Light Corp., for lighting voting booths..	300 00	
Lowell Electric Light Corp., for labor and use of lights for bonfire.....	8 00	
Lowell Electric Light Corp., for poles.....	60 00	
Lowell Gas Light Co., for gas	5,887 50	
Lowell Gas Light Co., for burners.....	27 00	
Charles E. Adams, for glass, globes, hardware, etc.....	62 03	
H. R. Barker Mfg. Co., for pipe, fittings and labor.....	111 51	
Henry C. Girard, for hardware	6 56	
Josiah Gates & Sons, for coupling and labor.....	25	
S. H. Jones, for plugs.....	3 60	
A. Ivan Laughton, for repairing lanterns.....	82 95	
A. F. Nichols, for posts, cross arms and labor.....	324 80	
Pratt & Forrest, for lamp posts	51 00	
Amasa Pratt & Co., for lamp posts.....	25 00	
J. W. Stewart, for repairing lanterns.....	100 54	
Staples Bros., for arms, screens, labor, etc.....	29 72	
Amounts carried forward.....	$ 84,110 95	$ 1,664 44

Amounts brought forward.....	$ 84,110	95	$ 1,664	44
C. Crevier, for repairing carriages, shoeing horses, etc...	179	10		
H. F. Ebert, for repairing harness.....	3	40		
Fay Bros. & Hosford, for repairing carriages.....	66	54		
A. D. Mitten, for blacksmithing.....	9	80		
H. Racicot, for painting and varnishing sleigh.....	4	00		
T. J. McDonald, for oats and straw.....	88	72		
Joseph Miller, for hay.....	13	25		
Brooklyn Varnish Mfg. Co., for enamel.....	65	00		
C. B. Coburn & Co., for paints, glass, etc.....	198	62		
Simpson & Rowland, for matches.....	16	50		
E. S. Hosmer, for travelling expenses.....	7	50		
E. A. and A. T. Smith, for concrete.....	6	00		
Buckland Printing Co., for printing.....	10	00		
Daily News Job Print, for printing.....	17	50		
Morning Mail Co., for printing	5	00		
J. Merrill & Son, for stationery	5	00		
C. H. Hanson & Co., for teaming.....	3	88		
			$ 84,810	76
Total Expenditure for the year 1896.....			$ 86,475	20

SEWERS AND DRAINS.

Appropriation.....	$ 20,000 00	
		$ 20,000 00

RECEIPTS.

From Appropriation for Roads and Bridges, for keeping horses, labor, etc.....	$ 223 75	
Appropriation for Health, for teaming and labor.....	106 25	
Appropriation for Water Works, for use of engine, etc.	316 80	
C. J. Cheney, for sale of old shovels.....	18 97	
County of Middlesex, for labor and material.....	169 00	
Lowell Electric Light Corp., for cement and labor.....	28 25	
Lowell and Suburban Street Railway Co., for mason work and material.....	55 32	
Eben Miller, for overdraft....	14 00	
A. Nourborn, for overdraft....	25 74	
Mrs. S. D. Starbird, for teaming and labor.....	21 17	
Lowell Institution for Savings, on loan.....	75,000 00	
		$ 75,979 25
Amount carried forward.....		95,979 25

Amount brought forward..... 95,979 25

Received for SEWER ASSESSMENTS:

B STREET.

From James Dow.....	$	23 73
M. L. Girard.....		61
Est. R. Ingham.....		28 49
Thomas P. Shaw.....		75 40

BEACON STREET.

David Dewar.....	34 17
D. W. Dewar.....	35 42
Robert Edwards.....	31 07
Joshua Merrill Est.....	429 34
J. W. Mort Est.....	34 17
J. W. Mort Est.....	60 73
J. W. Mort Est.....	31 07
S. B. Palmer.....	31 07
F. K. Stearns.....	44 49
H. A. Thompson.....	9 32

BELLEVUE STREET.

Martha Horn.....	2 75
Martha Horn.....	30 02
Ellen A. Stillings.....	53 39
John Sweatt.....	2 45
Nellie E. Talbot.....	53 39

BOURNE AND OTIS STREETS.

John A. Brown.....	60 75
Michael Gildee.....	73 26
A. Jacobs.....	35 71
A. Jacobs.....	35 71
A. Jacobs.....	35 71
John Shanley.....	129 91

Amounts carried forward..... $ 1,382 13 $ 95,979 25

Amounts brought forward.....	$ 1,382 13	$ 95,979 25
From S. C. Shirley.....	48 35	
Est. C. Tuttle.....	73 26	
Fred A. Wyman.....	73 26	

BROADWAY.

Daniel Gage.....	53 75
State Normal School.....	42 75

CENTRALVILLE MAIN SEWER.

Gertrude M. Dana.....	21 46
James Kane.....	37 17
Wm. T. Kenneson.....	44 19
H. H. Knight.....	27 71
Frank E. Lucas.....	39 02
J. A. Lombard.....	31 67
Fred C. Miller.....	492 25
Thomas F. Morris, Jr.....	32 54
Phoebe Paris.....	87 31
Nathaniel Peabody.....	33 50
Annie Weeks.....	42 28

CHAMBERS, GORHAM, THORNDIKE AND HALE STREETS.

John J. Brady.....	51 53	
Barbara Bralsford.....	47 00	
Martha Clark.....	22 60	
E. Dimodana.....	31 53	
Annie England.....	9 37	
Patrick Farnan.....	47 68	
Patrick Farnan.....	35 72	
Hugh Gildee.....	25 10	
James E. Gorman.....	35 92	
Joseph Green.....	86 50	
W. H. I. Hayes.....	65 50	
Lowell Waste Co.....	17 50	
Lowell Waste Co.....	60 83	
Lowell Bleachery.....	21 94	
Thomas Mahoney.....	47 72	
Amounts carried forward....	$ 3,169 04	$ 95,979 25

Amounts brought forward..... ...	$ 3,169 04	$ 95,979 25
From D. A. McHugh.....	25 00	
James McDermott.....	38 90	
Daniel McCarthy.....	25 76	
Rose McQuade.....	43 37	
Rose McQuade.....	18 40	
John Mountford.....	42 75	
Melissa Parker.....	77 00	
George Runels.....	296 00	
George Runels.....	143 68	
Thorndike Manufacturing Co.	126 31	
David Willman.....	57 50	
John J. Wholey.....	48 00	

CLARE STREET.

A. Bibeault and E. O. Harris..	23 47	
A. Bibeault and E. O. Harris..	22 97	
B. E. Braley.....	19 35	
John Brady.....	27 19	
James Baxter.....	20 39	
Michael Cullen.....	27 50	
Mary J. Dawson.....	21 42	
J. and N. Flynn.....	28 37	
J. and N. Flynn.....	26 14	
M. E. Horan.....	20 90	
Kate Martin.....	22 45	
Thomas McLaughlin.....	16 77	
Thomas McLaughlin.....	22 95	
Patrick McCrann.....	18 84	
D. O'Donoghue.....	25 04	
Proprietors of Locks and Canals.....	34 50	
E. Sullivan and M. Donovan..	21 92	
Ellen Sullivan.....	19 87	
P. Whiting, Trustee.....	5 25	
Whiting and Bradt.....	28 78	
Whiting and Bradt.....	25 20	
Whiting and Bradt.....	25 24	
Whiting and Bradt.....	56 18	
Whiting and Bradt.....	48 52	
Whiting and Bradt.....	2 57	

COSGROVE STREET.

Wm. W. Clark.....	73 45	
Amounts carried forward.....	$ 4,796 94	$ 95,979 25

Amounts brought forward.....	$ 4,796 94	$ 95,979 25
From James Deering.....	49 37	
E. E. Esterbrook.....	24 69	
Jane Gallagher.....	24 69	
Allen Hallas.....	24 69	
Wm. Heaney.....	49 37	
Rose McQuade.....	24 69	
Rose McQuade.....	24 69	
John C. Pihl.....	24 69	
Mrs. M. Preston.....	16 48	
Mrs. M. Preston.....	16 10	
Mrs. M. Preston.....	16 78	
Est. Charles Murphy.....	74 07	
John F. Webster.....	24 69	
Sarah E. Webster.....	24 69	

CROWLEY STREET.

Helen H. Aitken.....	51 53
Walter Adler.....	99 61
Joseph Baxter.....	51 53
John J. Danahy.....	51 53
Mrs. J. P. Dugdale.....	41 24
Joseph Fielding.....	51 53
Wm. H. Holgate.....	87 95
Thomas J. Lynch.....	50 86
Patrick Mooney.....	51 84
Leon Patnaude.....	52 20
James E. Slavin.....	51 53
A. Stopherd.....	51 53
Joseph Woodcock.....	51 53

CUSHING STREET.

J. G. Peabody & Son.....	14 27
Amasa Pratt.....	103 80
Amasa Pratt.....	64 50

D STREET.

M. O. & H. H. Batchelder....	112 64	
Joaquin S. Campos.....	75 10	
Amounts carried forward.....	$ 6,331 35	$ 95,979 25

Amounts brought forward.....	$ 6,331 35	$ 95,979 25
From Joaquin S. Campos.....	75 10	
Wm. Gray.....	62 58	
Willis E. Hatch.....	62 58	
A. J. Howe.....	56 32	
G. W. Hunt.....	56 32	
George Lindsay.....	28 16	
C. P. Witham.....	37 55	
C. P. Witham.....	49 98	

DARTMOUTH STREET.

Wm. H. Bent.....	101 77

DAVENPORT STREET.

Kate B. Bent.....	61 96
E. W. Douglass.....	52 57
E. W. Douglass.....	61 96
Samuel E. Emerson.....	76 00
Mrs. C. L. Rogers.....	26 02
S. T. Whittier.....	53 70

DURANT STREET.

Appropriation for Commons..	102 21
Wm. S. Brown.....	55 25
Joseph Chase.....	35 05
Benjamin Dean.....	52 50
Wm. F. Harvey.....	57 20
J. M. G. Parker Est.....	15 21
Richard Pendergast.....	31 57
Mary Quinn.....	60 00
E. A. Sanborn.....	72 75
Ann Smith.....	93 41
Elijah C. Thurston.....	51 50
Levi F. Warren.....	44 50
A. K. Whitcomb.....	60 00
Nettie A. Wilson.....	47 29

FAY STREET.

E. Anderson.....	14 59

Amounts carried forward..... ...	$ 7,986 95	$ 95,979 25

Amounts brought forward.....	$ 7,986 95	$ 95,979 25
From Mrs. J. E. Bailey.....	29 17	
John Cunningham.....	23 34	
Est. Firth Dawson.....	28 69	
John Durrough, Jr.....	29 17	
N. O. Delgren.....	14 58	
Greenwood Bros.....	29 17	
Henry Hatch.....	53 06	
John J. A. Lundberg.....	29 17	
A. D. Lord.....	29 17	
A. D. Lord.....	25 58	
E. O'Connell.....	19 25	
Julia O'Connell.....	19 84	
Julia O'Connell.....	51 70	
Luke O'Connell.....	53 67	
C. O'Donnell.....	29 17	
Nelson Paln.....	18 67	
C. G. A. F. W. E. Pihl.....	29 17	
C. G. A. F. W. E. Pihl.....	29 17	
John Riley.....	25 57	
Mrs. Michael Stackpole.....	12 82	
Jane Sugden.....	10 71	

FERNALD STREET.

Nellie L. Wheeler.....	88 34
Nellie L. Wheeler.....	90 56

FOSTER STREET.

Wm. H. Bent.....	133 20
M. M. Hayden.....	75 00

FOSTER, PRINCETON, SAYLES AND WESTFORD STREETS.

James F. Holden.....	624 85
M. J. Paine.....	47 50

GIBSON STREET.

E. Brickett.....	32 21	
Amounts carried forward.....	$ 9,669 45	$ 95,979 25

Amounts brought forward.....	$ 9,669 45	$ 95,979 25
From E. Bricket.....	68 28	
J. W. Bennett.....	33 70	
J. W. Bennett.....	33 74	
J. W. Bennett.....	30 47	
J. W. Bennett.....	36 55	
J. W. Bennett.....	34 83	
J. W. Bennett.....	36 49	
J. W. Bennett.....	36 17	
J. W. Bennett.....	71 97	
J. W. Bennett.....	29 41	
E. E. Gaylor.....	36 46	
F. A. Sturtevant.....	36 39	
Sturtevant & Galer.....	36 32	
G. C. A. H. Whitney.....	41 05	

GORHAM STREET.

Michael Corbett.....	188 98
M. Gormley.....	39 52
Alice A. Leahey.....	59 51
M. H. McGuire.....	52 15
George F. Robinson.....	24 50

HOVEY STREET.

Est. F. A. Hildreth.....	23 47

HOVEY AND DALTON STREETS.

J. Boisvert.....	18 90
Napoleon Boisvert.....	23 55
Sadie Ducharme.....	14 13
W. H. McDaniels.....	48 75
W. H. McDaniels.....	52 10
Eli Poirien.....	21 49

JUNE STREET.

Daniel Gage.....	110 23	
Joseph C. Martel.....	51 49	
Amounts carried forward	$ 10,960 05	$ 95,979 25

Amounts carried forward.....	$ 10,960 05	$ 95,979 25

LONDON STREET.

From Jane Hodge.....	23 73	

LUDLAM STREET.

Joseph Arsenault.....	18 62	
Alfred Daigle.....	18 62	
Chasie H. Duren.....	32 30	
S. M. Fitzpatrick.....	18 62	
E. M. Gilman.....	136 88	
E. M. Gilman.....	34 22	
Frank I. Hayes.....	34 22	
C. F. Hemenway.....	29 74	
C. F. Hemenway.....	30 10	
Eliza Judge.....	23 95	
Alfred LeFavre.....	34 22	
R. N. Maker.....	34 22	
John Mylot.....	18 62	
Nathaniel Peabody.....	21 08	
Nathaniel Peabody.....	72 20	
Nathaniel Peabody.....	63 30	
Rosalie Pepin.....	18 62	
Leopoldine Pepin.....	18 62	
F. E. Pollard.....	60 78	
E. Rouselle.....	34 22	
C. P. Witham.....	34 22	
C. P. Witham.....	34 22	

LUDLAM AND EIGHTEENTH STREETS.

J. B. Gilman.....	28 74	
J. B. Gilman.....	30 72	
Arthur Hamblett.....	22 59	
D. P. Knowlton.....	54 26	
Sarah A. Nichols.....	168 70	

LUNDBERG STREET.

Mary Boynton.....	25 20	
Amounts carried forward.....	$ 12,135 58	$ 95,979 25

Amounts brought forward.....	$ 12,135 58	$ 95,979 25
From Bridget Burns.....	12 44	
Mrs. A. A. Hunt.....	15 45	
Mrs. A. A. Hunt.....	12 35	
A. Jacobs.....	18 15	
A. Jacobs.....	17 65	
A. Jacobs.....	17 65	
Mrs. J. P. Ramsay.....	12 60	
Samuel Wood.....	12 48	

MAIN STREET.

Eliza Belanger.....	37 68
Joseph Branford.....	22 50
E. B. Conant.....	42 19
Thomas H. Elliott.....	14 06
D. M. Edwards.....	28 12
D. M. Edwards.....	28 12
Edward Fitzgerald.....	172 97
Mary Kenney.....	14 06
Gertrude L. Kimball.....	22 50
Mrs. A. L. Libbey.....	59 06
Mrs. P. McCullough.....	47 81
Mrs. P. McCullough.....	14 06
Johannah McKearn.....	14 06
G. A. Shufelt.....	52 74
George F. Tilton.....	22 50
Thomas Whitston.....	41 07
Thomas Whitston.....	43 32
Dennis Wholey.....	21 09

MAMMOTH ROAD.

Isidore Turcott.....	64 96
A. C. Varnum.....	119 58

MIDLAND STREET.

W. H. Anderson.....	63 69	
Orlando Blodgett.....	350 28	
Orlando Blodgett.....	58 00	
Est. C. C. Coburn and Warren Fox.....	53 19	
Amounts carried forward.....	$ 13,661 96	$ 95,979 25

Amounts brought forward.....	$ 13,661 96		$ 95,979 25	
From Est. C. C. Coburn and Warren Fox.....	196 64			
Franklin P. Fox.....	97 47			
H. A. Merrill.....	100 84			
R. D. Nesmith.....	80 94			
Wilfred L. Northrup.....	98 29			
Mrs. M. B. Putnam.....	145 42			

NESMITH STREET.

Annie M. Allen.....	66 80	
Oliver H. Perry.....	17 81	
Oliver H. Perry.....	67 91	

NEW WILDER AND PARKER STREETS.

Michael Rourke.....	75 50	

NICOLETTE STREET.

Josiah Butler.....	51 68	
The Highland Club.....	158 05	

PARKER STREET.

George W. Marshall.....	34 62	

PLAIN STREET.

Albert E. Fisher.....	18 57	
G. L. Hubbard.....	24 75	
J. W. McIntire.....	39 15	
P. P. Perham.....	30 93	
A. P. Quimby.....	83 25	
E. H. Reynolds.....	22 50	
Est. P. Tilton.....	16 70	
A. P. Varney.....	27 40	
Amounts carried forward.....	$ 15,117 18	$ 95,979 25

Amounts brought forward.....	$ 15,117 18	$ 95,979 25

PLAIN STREET AND QUIMBY AVENUE.

From J. P Downing.....	24 30
Myra French.....	30 93
George H. Kirby.....	32 85
Thomas A. Mason.....	43 88
A. P. Quimby.....	85 50
Wm. B. Spalding.....	84 37
Wm. H. Ward.....	38 48
Abraham Wolf.....	34 88

ROCK STREET.

Charles H. Allen.....	117 00
Patrick Ward.....	37 20

STEVENS STREET.

Mrs. M. P. Putnam.....	69 50
A. C. Stevens.....	110 20

SUTHERLAND STREET.

A. S. Baker.....	52 87
T. H. Barrows.....	52 87
Mary Fitzgerald.....	173 50
Charles E. Guthrie.....	41 87
Charles E. Guthrie.....	48 89
George Hamblett.....	92 16
E. J. Heenan.....	52 87
Wm. J. Nelson.....	29 82
P. and E. J. Noon.....	29 90
H. J. O'Dowd.....	24 88
Gustave Paryn.....	52 87
Marcelle Roucelle.....	52 87
Alma Sayball.....	44 15
Zachariah Shore.....	52 87
O. H. Stafford.....	63 45
O. H. Stafford.....	42 30
Robt. W. Stowell.....	52 87
Amounts carried forward.....	$ 16,787 28 $ 95,979 25

Amounts brought forward.....	$ 16,787 28	$ 95,979 25

TANNER STREET.

From Est. L. Chase.....	25 00
D. W. Ellison.....	25 00
J. Q. A. Hubbard.....	37 55
J. Q. A. Hubbard.....	17 87
J. Q. A. Hubbard.....	72 94
J. Q. A. Hubbard.....	74 50
J. Q. A. Hubbard.....	25 00
Est. J. M. G. Parker.....	168 37
Est. J. M. G. Parker or owner unknown.....	25 00
Royal Whiton.....	75 00
Royal Whiton.....	75 00
Dennis Wholey.....	25 00

THIRD AVENUE.

O. Bartlett.....	56 00

TYLER PARK STREET.

Mrs. C. L. Rogers.....	95 77
Mrs. Solon W. Stevens.....	137 94
Albert White.....	97 40

WARWICK STREET.

James H. Carmichael.....	53 23
James H. Carmichael.....	64 09
T. E. Dexter.....	106 46
Lizzie G. Halstead.....	53 23
S. & M. Hallowell.....	53 23
Rufus Harwood.....	127 75
Freeman S. Hersey.....	53 23
George W. Marshall.....	60 42
Peter Mollahan.....	53 23
Peter Mollahan.....	53 23
George F. Penniman.....	107 53
George F. Penniman.....	169 90
Amount carried forward.....	$ 18,776 15 $ 95,979 25

Amount brought forward.....	$ 18,776 15	$ 95,979 25
From George F. Penniman.....	33 98	
George F. Penniman.....	17 04	
Dorothy E. Reed.....	53 23	
Thomas P. Shaw.....	88 63	
E. B. Simonds.....	34 18	
George W. Whitney.....	67 04	
N. F. Whitney.....	53 23	
N. F. Whitney.....	53 23	
N. F. Whitney.....	53 23	

WESTFORD STREET.

C. S. Dodge.....	85 94
J. J. Johnson.....	13 33
Elizabeth F. Ryan.....	78 33

WHITNEY AVENUE.

Est. Wm. Brigham.....	54 16	
Frank E. Fitts.....	54 15	
Frank E. Fitts.....	28 05	
Lizzie E. French.....	67 66	
Nellie M. Gordon.....	33 38	
O. R. Heaton.....	43 31	
Mrs. L. J. Hodgman.....	65 80	
Sullivan Holman.....	42 62	
Beatrice J. Holmes.....	34 22	
J. C. Johnson.....	95 01	
L. K. Leach.....	60 11	
Mrs. L. E. Luscomb.....	34 57	
Emory Peabody.....	31 89	
C. E. Porter.....	54 25	
John L. Shay.....	44 54	
Frederick J. Small.....	35 08	
George H. Stevens.....	33 47	
Sarah A. Shattuck.....	57 85	
Austin M. Wentworth.....	59 07	
Fred H. Whitney.....	48 07	
M. F. Wood.....	61 77	
Amounts carried forward.....	$ 20,446 57	$ 95,979 25

Amounts brought forward.....	$ 20,446 57	$ 95,979 25	

WINDSOR STREET.

From Cleveland J. Cheney.....	41 55	
		$ 20,488 12

Received for REMOTE DRAINAGE:

From J. Boisvert, Beaver Street..	$ 14 53	
J. Boisvert, Beaver Street....	14 53	
J. Boisvert, Beaver Street....	14 53	
The Fifteen Associates, Bourne Street.....	19 25	
State Normal School, Broadway.....	148 77	
Ellen M. Wholey, Burgess and Grace Streets.....	18 00	
Charles E. Carter, Chester Street.....	25 00	
Clara S. Greene, Dartmouth Street	30 00	
W. A. Ingham, Davidson Street	25 49	
Wm. Gillespie, Durant Street	15 97	
Edson Cemetery, Gorham Street.....	5 00	
P. Z. Hebert, Hall Street.....	29 40	
John B. Pelneault, Hall Street	25 00	
O. Portelance, Hall Street....	10 76	
Lowell Five Cent Savings Bank, W. D. Brown, Agt., Lawrence Street.....	20 00	
Thomas Carruthers, Livingston Avenue.....	12 02	
J. F. Sullivan, Mammoth Road	153 17	
Ellen F. Parker, Marginal Street.....	15 00	
Thomas Carlle, Middlesex Street.....	36 37	
E. N. Mitchell, Mt. Washington Street.....	35 00	
Helen Moody, Pine Street....	23 92	
A. A. Robinson, Pine Street..	25 00	
Amounts carried forward.....	$ 716 71	$ 116,467 37

Amounts brought forward.....	$ 716 71	$ 116,467 37
E. Underhill, Pine Street.....	25 00	
Addition to Plain Street School House, Plain Street.....	81 20	
A. Bibeault, Puffer Street.....	16 25	
J. C. Luce, Sheldon Street....	22 00	
Mrs. D. C. Burtt, Third Street	25 00	
Anna A. Leach, Westford Street.....	7 23	
Wm. H. Parker, West Fourth Street.....	33 46	
Thomas May, Woodward Avenue.....	23 03	
		949 88
		$ 117,417 25
Transferred from Appropriation for Interest.....		843 95
		$ 118,261 20

EXPENDITURES.

Paid for LABOR:	$ 81,159 13	$ 81,159 13
Paid for LUMBER, HARDWARE, Etc.:		
To Bachelder & Co.....	$ 1 50	
A. P. Bateman.....	7 21	
Burnham & Davis.....	90 42	
Holmes & Bray.....	191 44	
Howe Lumber Co.....	2,265 59	
Amasa Pratt & Co.....	45 98	
J. C. Bennett.....	20 12	
Boutwell Bros.....	95 59	
Wm. H. Carberry.....	544 50	
Concord Foundry Co.....	184 75	
Henry C. Girard.....	1,969 16	
A. F. Nichols.....	125 70	
Amounts brought forward.....	$ 5,541 96	$ 81,159 13

Amounts brought forward.....	$ 5,541 96		$ 81,159 13	
To Pevey Bros.....	9 94			
Richle Bros. Testing Machine Co.....	205 00			
The Ingersoll Sergeant Drill Co.....	660 50			
			6,417 40	
Paid for PIPE, BRICK, CEMENT, Etc.:				
To Edward Cawley.....	$ 5,414 34			
Wm. H. Carberry.....	31 50			
James A. Davis & Co.....	48 00			
Joseph Holtham.....	9 83			
Wm. E. Livingston.....	18 40			
Middlesex Coal Company of Lowell.....	56 00			
L. P. Palmer.....	132 38			
E. A. Simpson.....	467 50			
E. A. and A. T. Smith.....	1 50			
Staples Bros.....	4,114 06			
James Smith.....	24 75			
E. A. Wilson, Agt.....	6,815 11			
			$ 17,133 37	
Paid for SUNDRIES :				
To Appropriation for Roads and Bridges, for services of Superintendent of Streets, City Engineer, board of horse, labor, material, etc...	$ 2,958 20			
Appropriation for Watering Streets, for assessments and teaming.....	117 82			
Appropriation for Fire Department, for hose.....	22 50			
Appropriation for Public Buildings, for constructing tool house.....	1,482 86			
Appropriation for Water Works, for water.....	341 12			
Lowell Electric Light Corp., for lighting.....	2 95			
Amounts carried forward.....	$ 4,925 45		$ 104,709 90	

Amounts brought forward.....	$ 4,925 45	$ 104,709 90
To N. E. Tel. and Teleg. Co., for service.....	54 30	
H. R. Barker Mnf. Co., for lubricator, pipe, etc.....	27 45	
Carson French Machine Co., for rent of sewer machine..	301 45	
T. Costello & Co., for funnel and dippers.....	6 50	
Derby & Morse, for repairing blasting machine.....	1 50	
Drury & Green, for pipe, radiators, fittings and labor.....	321 67	
Edson Manufacturing, for hose, couplings, repairing, etc....	119 82	
Charles E. Gee, for blacksmithing.....	47 00	
Charles T. Haskell, for fitting keys and filing saws.....	13 33	
S. H. Jones, for washers, cement, water glasses, labor, etc.....	61 08	
Lowell Steam Boiler Works, for repairing plate.....	1 00	
W. A. Mack & Co., for jets, iron, labor, etc.....	34 40	
D. McEachren, for sharpening tools.....	24 10	
John McLellan, for sharpening tools.....	16 60	
A. Nourborn, for castings and labor.....	44 82	
A. L. Ready & Son, for canvas and hoop iron.....	37 59	
O. A. Richardson's Sons, for repairing tapes.....	2 60	
Jerry Ryan, for hood for forge and repairing cans.....	7 75	
C. N. Rice, for filing saw.....	40	
Scannell & Wholey, for gaskets, repairing boiler, labor, etc.....	82 22	
J. W. Stewart, for iron, zinc and labor.....	12 03	
Amounts carried forward.....	$ 6,143 06	$ 104,709 90

Amounts brought forward.....	$ 6,143 06	$ 104,709 90
To Wm. H. Ward, for derrick boom and rent of engine....	115 50	
Weir Electric Co., for wire and repairing blasting machine	36 25	
H. H. Wilder & Co., for soap stone.....	1 25	
Boston Engineers Supply Co., for oil.....	41 48	
Willard A. Brown, for hose...	1 50	
C. B. Coburn & Co., for asbestos, packing, oil, cans, waste, etc.....	62 76	
Crystal Oil Co., for oil.....	54 53	
Donovan & Co., for exploders, forcite, etc.....	294 45	
Josiah Gates & Sons, for hose and repairing.....	35 65	
Hecla Powder Co., for fuse, dynamite, etc.....	104 55	
G. A. Leavens, for fuse, gelatine, dynamite, etc.....	1,209 64	
Leighton Bros., for globes, brushes and lanterns.....	55 85	
T. J. McDonald, for salt.....	25	
Wm. Nichols & Co., for dualin	95 41	
A. G. Pollard & Co., for soap..	1 39	
Savage Bros., for oat meal....	41 20	
W. H. Spalding & Co., for colors and brushes.....	4 71	
E. N. Wood & Co., for salt....	1 50	
Adams & Co., for office furniture.....	77 06	
L. Beals, for paper fastener..	2 00	
F. U. Cambridge, for stationery.....	2 20	
Courier-Citizen Co., for advertising.....	5 25	
Daily News Job Print, for printing.....	1 50	
Dumas & Co., for blank book	10 75	
E. Gerould & Co., for blank books.....	5 50	
A. N. Harmon, for frames.....	4 50	
Thomas H. Lawler, for bill file	2 50	
Amounts carried forward.....	$ 8,412 19	$ 104,709 90

Amounts brought forward.....	$ 8,412 19	$ 104,709 90
To Hooper, Lewis & Co., for book	5 00	
O. A. Libby, for printing.....	3 50	
Lowell Daily Sun, for printing and advertising.....	7 50	
Morning Mail Corp., for printing	45 75	
J. Merrill & Son, for stationery	8 60	
George A. Nelson, for photographs.....	17 50	
G. C. Prince & Son, for paper	2 00	
Smith Premier Typewriter Co., for ribbons.....	4 50	
Thompson & Hill, for printing	9 70	
George Bowers, for mileage ticket, car fares, postage, etc.	14 43	
C. J. Cheney, Jr., for mileage book and expenses to Boston	31 00	
F. W. Farnham, cash paid for rent of stable.....	12 00	
Richardson's Hotel, for refreshments.....	53 45	
Lidgerwood Mfg. Co., for sewer machine.....	1,694 42	
Frederick C. Billings, for 235 square feet of land, corner of Billings St. and Barker Avenue.....	23 50	
Julian Talbot, for damage to property.....	250 00	
Hubbard & Blake, for error of assessment on Tanner Street	17 87	
Thomas F. Morris, for damage to property.....	14 79	
Marietta Wheeler, for damage to property.....	185 00	
F. E. Dexter, rebate for remote drainage, South Walker St.	29 97	
W. A. Ingham & Co., rebate for remote drainage, Davidson Street.....	25 49	
Dorothy Read, rebate remote drainage, South Walker St.	29 97	
Ephraim B. Symonds, rebate remote drainage, South Walker Street.....	15 75	
Amounts carried forward.....	$ 10,913 88	$ 104,709 90

Amounts brought forward.....	$ 10,913 88	$ 104,709 90
To George W. Whitney, rebate remote drainage, South Walker Street.....	34 60	
James F. Holden, abatement of sewer assessment, Westford Street.....	30 00	
A. M. Huntoon & Co., for rubber boots.....	90 60	
E. Lavery, for repairing rubber boots.....	15 80	
C. A. Mitchell & Co., for rubber boots.....	4 50	
O'Sullivan Bros., for blacking	45	
James B. Field, for professional services.....	10 00	
J. C. Irish, for professional services.....	15 00	
A. W. Baker, for veterinary dentistry.....	6 00	
A. H. Cluer, for collar, whip, harness and repairing.....	134 90	
Conant & Co., for blanket, mat, whip, etc.....	14 75	
C. H. Hanson & Co., for fly net	2 00	
C. H. Hanson, Jr., for repairing reins.....	15	
Fay Bros. & Hosford, for sleigh and repairing carriages....	96 95	
Sawyer Carriage Co., for buggy and repairing carriages..	405 90	
Charles Clapp, for horse and exchange of horses.....	646 50	
J. H. Sparks, for carriage hire	10 00	
B. M. Blake, for teaming.....	208 00	
T. Buey, for teaming.....	14 00	
B. G. Brown, for teaming,	4 00	
Connors Bros., for teaming, labor and use of derrick....	427 38	
Henry P. Hasey, for teaming..	24 00	
Joseph Mullen, for teaming..	19 40	
Walter W. Smith, for teaming	70 00	
E. A. Simpson, for teaming..	232 00	
C. A. Wilson, for teaming....	48 00	
Amounts carried forward.....	$ 13,478 76	$ 104,709 90

Amounts brought forward.....	$ 13,478 76	$ 104,709 90
To American Express Co., for teaming.	1 40	
N. Y. and B. Des. Ex. Co., for transportation.	90	
B. and M. R. R., for transportation.....	68 44	
N. Y., N. H. and H. R. R., for transportation.	1 80	
		$ 13,551 30
Total Expenditure for the year 1896.		$ 118,261 20

COMMONS.

Appropriation.	$ 10,000 00	
		$ 10,000 00

RECEIPTS.

From John Oliver, for stone.....	23 50	
John Oliver, for rent of lots on South Common.....	909 00	
		$ 932 50
		$ 10,932 50

TRANSFERS.

From Appropriation for Paving..	$ 10 05	
Appropriation for Extension of Moody Street.....	14 75	
Appropriation for Interest....	136 34	
Corporation Tax.....	$ 1,000 00	
		$ 1,161 14
		$ 12,093 64

EXPENDITURES.

Paid for SUNDRIES :

To Sundry persons for labor.....	$ 8,798 52	
Amount carried forward.....	$ 8,798 52	

Amount brought forward	$ 8,798	52
To Appropriation for Roads and Bridges, for sidewalk assessment Rogers Street.....	363	37
Appropriation for Roads and Bridges, for services of engineers.....	19	00
Appropriation for Watering Streets, for assessments....	262	27
Apropriation for Sewers and Drains, for sewer assessment Durant Street.....	102	21
Appropriation for Water Works, for water.....	20	35
A. P. Bateman, for lumber...	35	06
Burnham & Davis, for lumber.		39
Howe Lumber Co., for lumber.	1	66
W. T. S. Bartlett, for hardware.....	42	07
H. R. Barker Manf'g Co., for solder and labor.....	1	70
Boutwell Bros., for iron.....	19	97
Charles E. Gee, for repairing lawn mowers.....	47	30
D. McEachren, for sharpening drills.....	6	95
A. F. Nichols, for castings....	6	65
Rice & Company, for wire....	4	38
Staples Bros., for drain pipe, brick, stands, etc.....	82	35
E. A. Wilson, Agt., for cement	5	20
Thompson Hardware Co., for hardware and paint.....	94	06
D. H. Wilson & Co., for pipe, fittings, labor, etc.....	79	16
W. A. Mack & Co., for fence pales and labor.....	12	56
Brooklyn Varnish Co., enamel	39	75
Wm. E. Livingston, for brick, cement and lime.....	54	13
Eugene N. Morrill, for paint..		80
Wm. Nichols & Co., for dualin, fuse, powder, exploders, etc.	38	50
A. H. Cluer, for repairing harnesses.....	31	80
Amount carried forward.....	$ 10,170	16

Amount brought forward.....	$ 10,170 16	
To O. K. Dexter, blacksmithing..	104 61	
Henry K. Ferrin, for wagon..	100 00	
Amos Green, for sled stakes..	4 00	
M. V. B. Libby, shoeing horses	9 05	
D. McEachren, blacksmithing	23 15	
A. D. Mitten, for blacksmithing.....	1 75	
H. J. O'Dowd & Co., for blanket holder, hames, dressing, etc.	2 50	
John Oliver, for keys.....	1 50	
James Pinder, for horse and sleigh.....	85 00	
A. L. Warren, for sled and blacksmithing.....	45 80	
Thomas H. Lawler, stationery.	4 00	
B. M. Blake, for corn, hay and shorts.....	17 08	
Joseph Miller, for hay, grain, straw and oats.....	229 74	
E. N. Wood & Co., for lawn dressing and seed.....	47 80	
C. K. French, for plants.....	6 75	
Wm. Grimwood, for trees.....	21 50	
C. F. Miles, for trees and plants	153 78	
Patten & Co., for plants and bulbs.....	68 60	
E. Sheppard, for plants.....	16 00	
Whittet & Co., for plants.....	29 10	
C. G. Coburn, for baskets, guano, hay, etc.....	110 98	
C. H. Hanson & Co., for whiffletrees and teaming.....	55 00	
Wm. F. Stevens, for stone drag	5 00	
E. A. & A. T. Smith, concrete.	116 68	
J. F. Holden, for loam.....	322 75	
Lowell Bone Fertilizer Co., for gravel.....	4 35	
O. R. Park, for stone.....	2 88	
J. E. Conant & Co., for horse..	61 00	
Amede Archambault, manure	34 50	
D. J. Donovan, for manure....	11 00	
Eugene Dean, for manure....	16 00	
Wm. R. Kew, for manure.....	10 00	
James O'Heir, for manure....	18 00	
Amount carried forward.....	$ 11,910 01	

Amount brought forward.....	$ 11,910 01	
To E. A. Simpson, for manure...	5 13	
J. P. Thompson, for manure...	8 50	
D. H. Laporte, for teaming...	164 00	
J. H. Sparks, for carriage hire.	6 00	
Total Expenditure for the year 1896.....		$ 12,093 64

PRINTING AND ADVERTISING.

Appropriation.	$ 5,000 00	
		$ 5,000 00

EXPENDITURES.

Paid for SUNDRIES :

To John Barnes.....	$ 182 84
Buckland Printing Co.....	65 00
Butterfield Printing and Binding Co.....	15 00
Campbell & Hanscom.....	106 51
Courier-Citizen Co.....	747 65
Daily News Co.....	110 77
Daily News Job Print.....	332 35
Dumas & Co.....	103 25
Lepine & Co.....	109 90
Le National.....	26 10
Lowell Daily Sun.....	404 19
Lowell Herald Publishing Co.	29 50
O. A. Libby.....	10 50
Morning Mail Co.....	525 66
Charles E. Robinson.....	5 50
Thompson & Hill.....	1,635 18
M. T. Ward.....	12 00
Fay Bros. & Hosford, posting.	2 00
Merrimac House, for posting	78 50
Pulsifer, Jordan & Co., paper.	324 00
Amount carried forward.....	$ 4,826 40

Amount brought forward.....	$ 4,826 40	
To Fred A. George, for envelopes and postage.....	2 58	
D. F. Lyons, for teaming.....	5 50	
Total Expenditure for the year 1896.		$ 4,834 48
Balance undrawn Dec. 31, 1896.		165 52
		$ 5,000 00

PUBLIC BUILDINGS.

Balance undrawn Jan. 1, 1896...	$ 317 73	
Appropriation.	15,000 00	
		$ 15,317 73

RECEIPTS.

From Appropriation for Watering Streets, for labor and material.....	$ 169 89	
Appropriation for City Cemeteries, for labor and material	1,048 25	
Appropriation for Paupers, for coffins, labor and material..	2,255 74	
Appropriation for Police, for labor and material.....	250 00	
Appropriation for Sewers and Drains, for constructing tool house.	1,482 86	
Appropriation for Addition to Police Stable, for labor and material.	40 39	
Appropriation for Health, for labor and material.....	6 80	
Appropriation for Water Works, for labor and material.	548 07	
Reserved Fund, for labor and material.	1,567 81	
Amounts carried forward.....	$ 7,369 81	$ 15,317 73

Amounts brought forward.....	$ 7,369 81	$ 15,317 73
From T. Haworth, Agt., for rent of land.....	6 00	
C. F. Varnum, for sale of material.....	34 35	
Conant & Co., for overdraft...	5 70	
H. H. Tilton & Co., for labor..	7.50	
		$ 7,423 36
		$ 22,741 09

EXPENDITURES.

Paid SUPERINTENDENT :

To Charles F. Varnum, salary...	$ 1,800 00	$ 1,800 00
Paid Sundry persons for labor...	$ 10,911 39	$ 10,911 39

Paid for LUMBER, HARDWARE, Etc.:		
To A. P. Bateman.....	$ 152 87	
J. W. Bennett.....	1 25	
A. L. Brooks & Co.....	12 09	
Burnham & Davis.....	569 51	
Davis & Sargent.....	38 13	
W. E. Hatch.....	14 00	
Holmes & Bray.....	70 71	
Howe Lumber Co.....	721 04	
J. H. Huntley.....	1 66	
Wm. H. Kimball.....	8 04	
Lowell House Furnishing Co..	3 84	
Amasa Pratt & Co.....	168 86	
Pratt & Forrest.....	106 20	
Sturtevant & Galer.....	1 50	
Wm. H. Wiggin.....	46 35	
Charles E. Adams.....	604 18	
W. T. S. Bartlett.....	32 38	
Boutwell Bros.....	1 18	
F. W. Cheney & Co.....	15 23	
Henry C. Girard.....	144 18	
Amounts carried forward.....	$ 2,713 20	$ 12,711 39

Amounts brought forward.....	$ 2,713 20	$ 12,711 39
To Wm. H. Hope & Co.....	50	
Thompson Hardware Co.....	14 21	
		2,727 91
Paid for SUNDRIES:		
To Appropriation for Watering Streets, for assessments....	27 60	
Appropriation for Water Works, for water.....	15 30	
Lowell Electric Light Corp., for power.....	182 21	
Lowell Gas Light Co., for fire clay.....	2 50	
N. E. Tel. and Teleg. Co., for service.....	128 15	
O. E. Averill, for blacksmithing.....	23 15	
H. R. Barker Mfg. Co., for pipe, fittings and labor.....	24 21	
Derby & Morse, for repairing motor.....	75	
Drury & Green, for pipe, fittings and labor.....	15 15	
Farrell & Conaton, for hose, filter, labor, etc.....	6 80	
S. H. Jones, for gas fixtures, fittings, labor, etc.....	272 64	
Joel Knapp & Son, for iron work, labor, etc.....	214 18	
Lowell Steam Boiler Works, for door and inspecting boilers.....	53 55	
W. A. Mack & Co., for iron and labor.....	22 55	
J. F. McElholm, for sal amoniac, zincs, labor, etc.....	36 66	
Rice & Company, for repairing desk railing.....	8 81	
Scott & O'Day, for pipe, fittings and labor.....	3 33	
H. H. Wilder & Co., for pipe, fittings and labor.....	69 18	
D. H. Wilson & Co., for pipe, fittings and labor.....	10 05	
Amounts carried forward....	$ 1,116 77	$ 15,439 30

Amounts brought forward.....	$ 1,116 77	$ 15,439 30
To J. W. Bennett & Co., for roofing	234 84	
B. G. Brown, for loam.....	100 00	
S. D. Butterworth, for mason work and material.....	58 41	
P. Conlon, for mason work and material.....	13 10	
C. F. Foss & Co., for mason work and material.....	16 22	
Philip Ginty, for slate, zinc and labor.....	59 58	
Robert Goulding & Son, for slate, zinc and labor.....	41 80	
D. W. Horne & Son, for loam.	99 50	
D. W. Horne & Son, for coal..	54 40	
Wm. E. Livingston, for cement, sand, lime, etc.....	48 90	
D. M. Prescott, for mason work and material.....	19 44	
James Smith, for mason work and material.....	34 55	
Samuel E. Snow, for mason work and material.....	13 52	
Charles Runels, for mason work.....	43 52	
E. A. and A. T. Smith, for concrete.....	76 58	
E. A. Wilson, Agt., for brick, lime, coal, sand, cement, etc.	40 15	
C. B. Coburn & Co., for paint, brushes, glass, oil, etc.....	244 94	
Cook, Taylor & Co., for cotton cloth.....	2 95	
A. L. Kittredge & Co., for lead, oil, paint, paper, etc.....	177 19	
Wm. L. Lockhart & Co., for coffin trimmings.....	111 20	
Lowell Wall Paper Co., for shades, pulleys, rollers, labor, etc.....	17 34	
O'Donnell & Gilbride, for duck, labor, etc.....	10 68	
A. G. Pollard & Co., for cotton cloth.....	11 50	
B. J. Richardson, for kyanize..	79 50	
Amounts carried forward.....	$ 2,726 58	$ 15,439 30

Amounts brought forward.....	$ 2,726 58	$ 15,439 30
To W. H. Spalding & Co., for paints, oil, turpentine, etc...	34 86	
A. G. Stiles & Co., for flour and shorts.....	2 30	
Buckland Printing Co., for printing.....	13 00	
Daily News Co., for advertising	2 25	
E. P. Gerould & Co., for copying books.....	7 00	
Thomas H. Lawler, for stationery.....	21 80	
L. J. Richards & Co., for atlas of Lowell.....	25 00	
Alvin Lawrence, for repairing clock.....	1 50	
Bridget Donnelly, for labor...	2 00	
C. K. Miller, for railroad tickets.....	62 50	
C. F. Varnum, for travelling expenses of committee, postage, etc.....	106 90	
Cahill Bros., for shoeing horses	2 40	
Q. A. Foster, for shoeing horses and blacksmithing.....	26 38	
M. V. B. Libbey, for shoeing horses.....	44 50	
A. D. Mitten, for shoeing horses.....	34 25	
A. L. Butman, for repairing harnesses.....	22 30	
J. E. Conant & Co., for cover, repairing harnesses, etc.....	35 70	
J. H. Swett, for repairing carriages.....	34 88	
Merrimac House, for refreshments.....	18 75	
Richardson's Hotel, for refreshments.....	62 05	
A. H. McCann, for professional services.....	61 50	
W. A. Sherman, for professional services.....	16 00	
J. H. Sparks, for professional services.....	3 00	
Amounts carried forward.....	$ 3,367 40	$ 15,439 30

Amounts brought forward.....	$ 3,367 40	$ 15,439 30
To Charles R. Wood, for professional services.....	22 50	
George Whiteley, for damage to wagon.....	100 00	
J. E. Conant & Co., for keeping horse.....	44 32	
Loren M. Fuller, for keeping horse.....	37 25	
Murphy & Bingham, for keeping horses.....	494 26	
Murphy & Bingham for clipping horse.....	3 00	
E. H. Morse, for horse.....	175 00	
J. H. Sparks, for carriage hire	13 00	
Thomas G. Little, for teaming	1 00	
Wm. Roberts, for teaming....	1 00	
American Express Co., for transportation.....	2 30	
B. and M. R. R., for transportation.....	2 73	
		$ 4,263 76
Total Expenditures for the year 1896.....		$ 19,703 06
Transferred to Appropriation for School Houses.....		3,000 00
		$ 22,703 06
Balance undrawn Dec. 31, 1896..		38 03
		$ 22,741 09

ADDITION TO POLICE STABLE.

Balance undrawn Jan. 1, 1897..	$ 164 00	$ 164 00

EXPENDITURES.

Paid for SUNDRIES:		
To Appropriation for Public Buildings, for labor and material.	$ 40 39	
A. L. Brooks & Co., for lumber	1 96	
Howe Lumber Co., for lumber	54 93	
S. H. Jones, for pipe, fittings and labor.	20 92	
W. A. Mack & Co., for galvanized iron, solder and labor.....	45 80	
Total Expenditures for the year 1896.		$ 164 00

CITY HALL AND MEMORIAL BUILDING.

Balance undrawn Jan. 1, 1896..	$ 3,158 85	
		$ 3,158 85

EXPENDITURES.

Paid for SUNDRIES:		
To O'Donnell & Gilbride, for furnishing Memorial Building, for Grand Army.....	$ 1,485 00	
Prentiss Webster, for professional services.....	75 00	
Total Expenditures for the year 1896.....		$ 1,560 00
Balance undrawn Dec. 31, 1896..		1,598 85
		$ 3,158 85

LIBRARY.

Balance undrawn Jan. 1, 1896..	$ 4,691 60	
Appropriation.....	10,000 00	
		$ 14,691 60

RECEIPTS.

From Fred A. Chase, for fines, fees, catalogues, lost and damaged books, etc.....	$ 411 89	
County of Middlesex, dog tax of 1895.....	3,705 19	
Assignees W. B. Clark & Co., for overdraft.....	2 84	
		$ 4,119 92
		$ 18,811 52

EXPENDITURES.

Paid LIBRARIAN and ASSISTANTS:		
To Fred A. Chase, Librarian, salary.....	$ 1,500 00	
Sundry persons, for services..	6,258 16	
		$ 7,758 16
Amount carried forward.....		$ 7,758 16

Amount brought forward.....		$ 7,758 16

Paid for BOOKS, PERIODICALS, STATIONERY, Etc:

To American Academy Political and Social Science.....	$ 5 00	
D. Appleton & Co.....	6 00	
N. J. Bartlett & Co.....	212 20	
E. P. Boone.....	7 50	
Boston Supply Co.....	5 00	
California Library Association	68	
T. H. Castor & Co.....	336 99	
L. A. Charlton.....	2 25	
Fred A. Chase.....	61 37	
A. E. Chasmar & Co.....	25 00	
A. S. Clarke.....	33 95	
W. B. Clarke & Co.....	894 92	
Assignee W. B. Clarke & Co...	615 82	
F. P. Coggeshall.....	4 00	
Oliver Ditson Co.....	68 09	
Dodd, Mead & Co.....	3 75	
Franklin Institute of Pennsylvania.....	1 50	
Francis R. Harper.....	2 16	
Bruno Hessling.....	1 70	
Historical Register Publishing Co.....	15 00	
Houghton, Mifflin & Co.....	50 00	
Walter S. Houghton.....	31 00	
Charles L. Hutchins.....	6 00	
Jordan, Marsh & Co.....	9 29	
Journal of Commerce and Commercial Bulletin.....	1 15	
Alice Reynolds Keyes.....	2 00	
C. A. Koehler & Co.....	2 40	
Charles F. Libbie & Co.....	192 04	
Library Bureau.....	19 69	
J. B. Lippincott Co.....	21 74	
George E. Littlefield.....	47 97	
Macmillan & Co.....	12 00	
Henry M. Meek.....	2 00	
Mercantile Library Association.....	6 50	
J. B. Millett Co.....	50 00	
Amounts carried forward.....	$ 2,656 66	$ 7,758 16

Amounts brought forward.....	$ 2,656 66		$ 7,758 16	
To New Amsterdam Book Co....	2 50			
G. C. Prince & Son.....	1 34			
S. Raymond Roberts, Treas...	20 00			
Sidney S. Ryder.....	4 25			
P. B. Sanford.....	150 00			
Willard Small.....	3 04			
B. F. Stevens.....	595 38			
Edward Thompson Co.....	12 00			
P. F. Van Everen.....	5 35			
Bradlee Whidden.	1 95			
Williamson & Co.....	4 00			
American Architect and Building News Co.....	4 15			
American Branch Society for Psychical Research.....	10 00			
American Journal of Science..	3 25			
American Library Association	5 00			
Astronomical Society of the Pacific.....	5 00			
Egypt Exploration Fund.....	10 00			
Library Bureau.....	46 10			
Microscopical Publishing Co...	5 00			
Office Publishers Weekly.....	8 00			
F. J. Barnard & Co.....	10 80			
Campbell & Hanscom.....	11 34			
Courier-Citizen Co.....	53 00			
Dumas & Co.....	595 43			
A. P. C. Griffin.....	3 60			
Gilman Josselin & Son.....	85 50			
Lepine & Co.....	8 00			
Thomas H. Lawler.....	30 13			
Morgan, Crossman & Co.....	7 83			
Preston & Rounds.....	3 50			
G. C. Prince & Son.....	578 40			
L. J. Richards & Co.....	25 00			
Sampson Murdock & Co.....	13 00			
P. B. Sanford.....	6 00			
Thompson & Hill.....	185 05			
Torrey Botanical Club.....	1 00			
				5,270 55
Paid for SUNDRIES:				
To Reserved Fund for heating....	$ 2,339 09			
Amounts carried forward.....	$ 2,339 09		$ 13,028 71	

Amounts brought forward..... ..	$	2,339 09	$	13,028 71
To Appropriation for Water Works, for water.....		13 50		
Fred A. Chase, for office expenses.		202 87		
W. H. Gilman, for laundering		3 48		
Lowell Gas Light Co., for gas		614 65		
Lowell Electric Light Corp., for lighting.....		462 77		
N. E. Tel. and Teleg. Co., for service.		37 05		
George W. Bagley, for labor and material.....		4 15		
H. R. Barker Mfg. Co., for chimneys, mantels, burners, etc.		88 80		
J. T. Carter & Co., for labor and material.....		88 80		
Henry C. Girard, for brass tags		2 50		
Hammond Typewriter Co., for cabinet.		20 00		
A. N. Harmon, for frames....		3 50		
E. F. Hathaway, for signs....		6 45		
J. W. Stewart, for gas stove..		2 50		
Thompson Hardware Co., for hardware.		3 46		
Weir Electric Co., for labor and material.....		4 90		
C. Zimmer, for repairing lock		1 00		
Alvin Lawrence, for clock....		120 00		
O'Donnell & Gilbride, for draping.....		5 00		
Clinton L. Bruce, for binding material.		5 65		
Carles E. Carter, for binding material.		28 50		
C. B. Coburn & Co., for ammonia, brushes, paper, etc...		17 31		
India Alkali Works, for Savogran.....		8 13		
Norfolk Mfg. Co., for powder..		4 48		
Edwin Sheppard, for plant...		5 00		
W. H. Spalding & Co., for paste		2 70		
B. and M. R. R., for transportation.		27		
Amounts carried forward.....	$	4,096 51	$	13,028 71

Amounts brought forward.....	$ 4,096 51	$ 13,028 71
To N. Y., N. H. and H. R. R. Co., for transportation.....	80	
G. E. Stanley, for transportation.....	3 50	
		4,100 81
Total Expenditures for the year 1896.....		$ 17,129 52
Balance undrawn Dec. 31, 1896..		1,682 00
		$ 18,811 52

HEALTH.

Balance undrawn Jan. 1, 1896..	$ 123 38	
Appropriation.....	35 000 00	
Received from Horace H. Knapp, for fees, sale of ashes, lumber, etc.....	265 57	
		$ 35,388 95

TRANSFERS.

From Reserved Fund.....	$ 10,000 00	
Corporation Tax.....	2,000 00	12,000 00
		$ 47,388 95

EXPENDITURES.

Paid for SERVICES:

To James Bayles, salary.....	$ 500 00	
James B. Field, salary.....	500 00	
Thomas F. Harrington, salary	243 86	
Sundry persons, for labor....	33,194 79	
		$ 34,438 65

Paid for HAY, GRAIN, Etc.:

To Horace P. Beals.....	$ 613 06	
J. F. Denning.....	259 77	
C. H. Hanson & Co	545 26	
Amounts carried forward.....	$ 1,418 09	$ 34,438 65

Amounts brought forward.....	$	1,418 09	$	34,438 65
To W. P. Foye.....		296 02		
George G. Kelley.....		162 51		
Wm. E. Livingston.....		204 40		
T. J. McDonald.....		406 85		
Joseph Miller.....		197 50		
E. S. Sherman & Co.....		383 72		
A. G. Stiles & Co.....		273 71		
Alba G. Stiles.....		34 30		
E. N. Wood & Co.....		107 47		
				3,484 57
Paid for HORSES, CARRIAGES, HARNESSES, ETC.:				
To T. M. Bolton.....	$	369 85		
Boutwell Bros.....		475 86		
J. C. Donovan.....		288 95		
H. F. Ebert.....		40 00		
C. H. Hanson & Co.....		125 00		
Sawyer Carriage Co.....	$	109 55		
C. C. Thompson.....		1 50		
				1,410 71
Paid for SUNDRIES:				
To Appropriation for Watering Streets, for assessments....	$	6 53		
Appropriation for Sewers and Drains, for sewer connections.....		106 25		
Appropriation for Public Buildings, for labor and material.....		6 80		
Appropriation for Water Works, for water.....		74 25		
Lowell Electric Light Corp., for lighting.....		11 10		
Lowell Gas Light Co., for gas		62 80		
N. E. Tel. and Teleg. Co., for service.....		307 01		
Otis Allen & Son, for sawdust		6 50		
Burnham & Davis, for lumber		2 83		
Holmes & Bray, for lumber..		75		
Howe Lumber Co., for lumber		103 86		
Amounts carried forward.....	$	688 68	$	39,333 93

Amounts brought forward.....	$ 688 68	$ 39,333 93
To Wm. Kelly & Son, for sash...	75	
Pratt & Forrest, for screen...	1 30	
Charles E. Adams, for hardware.....	65	
J. C. Bennett, for paint.....	8 70	
Boutwell Bros., for iron, steel, etc.....	9 28	
Henry C. Girard, for hardware	61 09	
Thompson Hardware Co., for lock.....	50	
H. R. Barker Mfg. Co., for pipe, fittings and labor.....	2 64	
John Callahan, for pail.....	1 00	
T. Costello & Co., for dish pans, hose, couplings, etc...	29 60	
Drury & Green, for pipe, fittings and labor.....	12 00	
Farrell & Conaton, for pipe, fittings and labor.....	5 29	
S. H. Jones, for pipe, solder, labor, etc.....	6 90	
Wm. McLarney & Co., for pipe, ventilator and labor.....	11 50	
A. L. Ready & Son, for canvas	9 60	
Rhode Island Steeple and Chimney Co., for mason work, removing screen and painting stack.....	25 00	
Scannell & Wholey, for plates, steel and labor.....	271 21	
H. H. Wilder & Co., for pails, pipe, rod, and labor.....	33 05	
C. Zimmer, for repairing locks, clippers and exchange of revolvers.....	4 90	
H. M. Alexander & Co., for vaccine points.....	20 00	
Charles E. Carter, for medicine	15 60	
Carlton & Hovey, for medicine	4 92	
C. B. Coburn & Co., for brushes, lanterns, oil, paint, etc.....	136 35	
C. E. Collins, for brooms.....	4 50	
Amounts carried forward.....	$ 1,365 01	$ 39,333 93

Amounts brought forward.....	$ 1,365 01	$ 39,333 93
To Eimer & Arneud, for rubber caps.....	3 00	
Ellingwood & Co., for vaccine points.....	16 45	
Franklin Educational Co., for chemicals.....	17 79	
John J. Farrell, for horse powder.....	2 50	
Frank Foley, for blood serum	2 00	
Theodore Metcalf Co., for repairing syringe.....	2 00	
Wm. P. Miller & Co., for axle grease.....	14 40	
A. G. Pollard & Co., for bag...	2 50	
O. B. Ranlett, for meal, soap powder, etc.....	23 52	
Robinson & Foster, for Germol	7 85	
Smith & Goold, for lotion....	12 00	
Talbot Dyewood and Chemical Co., for acids, bottles, etc...	15 28	
George O. Wyatt & Co., for harness oil.....	2 00	
A. W. Baker, for veterinary dentistry.....	16 00	
Edward J. Carroll, for services as examiner.....	85 00	
Charles M. Frye, for professional services.....	32 50	
C. L. Fox, for professional services.....	462 85	
Wm. A. Johnson, for professional services.....	321 00	
H. H. Knapp, Agt., for sundry expenses.....	249 29	
John J. Pickman, for professional services.....	25 00	
F. E. Saunders, for record book, barometer and temperature readings.....	154 75	
W. A. Sherman, for professional services.....	28 50	
T. B. Smith, for professional services.....	23 00	
Amounts carried forward.....	$ 2,884 19	$ 39,333 93

Amounts brought forward.....	$ 2,884 19		$ 39,333 93	
To Massachusetts Association Boards of Health, for assessments.....	8 00			
J. M. Smith, for cleaning barometer.....	3 00			
Connors Bros., for lime, coal and weighing.....	1,497 83			
Daniel Gage, for coal.....	202 15			
G. E. Leavitt & Co., for coal..	34 00			
Wm. E. Livingston, for coal and lime.....	20 15			
Queen's Run Fire Brick Co., for fire brick.....	28 08			
Rourke & Sullivan, for coal....	43 03			
Charles Runels, for stone post and labor.....	9 76			
J. H. Walker, for mason work and material.....	12 80			
Thomas C. Lee, for insurance..	75 00			
E. M. Tucke, for insurance....	30 00			
Campbell & Hanscom, for subscription and printing.....	156 84			
Courier-Citizen Co., for printing.....	120 00			
Daily News Job Print, for printing.....	6 25			
Engineering Record, for subscription.....	5 00			
Heliotype Printing Co., for maps.....	48 00			
Thomas H. Lawler, for stationery.....	55 50			
J. Merrill & Son, for directory	2 00			
Morning Mail Corp., for printing.....	11 50			
George B. Reed, for book.....	3 00			
L. J. Richards & Co., for atlas of Lowell.....	25 00			
Smith Premier Typewriter Co., for typewriter material.....	19 80			
Thompson and Hill, for printing.....	105 00			
Tilton & Co., for stationery...	12 30			
J. M. Washburn, for rubber bands.....	60			
Amounts carried forward.....	$ 5,418 17		$ 39,333 93	

Amounts brought forward.....	$ 5,418 17	$ 39,333 93
To A. J. Wells Manfg. Co., for cabinet, files, etc.....	8 60	
J. Henry Woods, for books....	6 00	
John Cross, for canvas covers	35 00	
O'Sullivan Bros., for rubber boots.....	9 50	
A. G. Pollard & Co., for crash	5 75	
C. H. Hanson & Co., for medicine and use of horses.....	267 00	
J. H. Sparks, for carriage hire and keeping horses.....	486 57	
American Express Co., for transportation.....	2 55	
B. and M. R. R., for transportation.....	13 43	
		6,253 18
Total Expenditures for the year 1896.....		$ 45,587 11
Balance undrawn Dec. 31, 1896..		1,801 84
		$ 47,388 95

WATER WORKS.

Balance undrawn Jan. 1, 1896..	$ 30,886 41	
		$ 30,886 41

RECEIPTS.

From Sundry persons for water, etc., in 1892.....	$ 3 10	
Sundry persons, for water, etc., in 1893.....	26 57	
Sundry persons, for water, etc., in 1894.....	526 83	
Sundry persons, for water, etc., in 1895.....	31,003 71	
Sundry persons, for water, etc., in 1896.....	187,439 98	
A. Buteau, for overdraft.....	2 00	
John Quirk.....	1 80	
		219,003 99
		$ 249,890 40

EXPENDITURES.

Paid for SERVICES:

To George E. Putman, President..	$ 400 00	
Robert J. Thomas, Superintendent.....	1,800 00	
Sundry persons, for labor.....	59,482 15	
		$ 61,682 15
Amount carried forward.....		$ 61,682 15

Amount brought forward.....		$ 61,682 15
Paid Appropriation for City Debt, instalments on notes.....	$ 26,000 00	$ 26,000 00
Paid INTEREST:		
To Lowell Institution for Savings	$ 5,695 00	
Commonwealth of Massachusetts.....	1,500 00	
National Bank of Redemption	1,500 00	
Sundry persons.....	42,400 00	$ 51,095 00
Paid Sundry persons, refunds on water rates, etc.....	$ 1,952 26	$ 1,952 26
Paid for FUEL:		
To Daniel Gage.....	$ 10,564 80	
D. W. Horne & Son.....	260 89	
Wm. E. Livingston.....	12 08	
Lowell Gas Light Co.....	2 00	$ 10,839 77
Paid for PIPE, METERS, HYDRANTS, Etc.:		
To Charles E. Adams.....	$ 1,066 97	
Howard S. Adams.....	40 00	
American Wheelock Engine Co.....	960 74	
American Tool and Machine Co.....	330 00	
H. R. Barker Manufacturing Co.....	523 70	
J. W. Bennett.....	12 00	
Boston Engineers' Supply Co.	194 31	
Builders' Iron Foundry.....	475 03	
Charles Carr.....	1 25	
Chapman Valve Co.....	16 11	
Michael Collins.....	100 98	
Columbia Smelting and Refining Works.....	169 92	
T. Costello & Co.....	892 54	
Amounts carried forward.....	$ 4,783 55	$ 151,569 18

Amounts brought forward.....	$ 4,783 55	$ 151,569 18
To Davis & Farnum Manufacturing Co.....	10 12	
Deane Steam Pump Co.....	136 80	
W. and B. Douglass.....	7 00	
Drury & Green.....	237 07	
Farrell & Conaton.....	91 85	
Alonzo Hall.....	4 50	
Hersey Manufacturing Co.....	2 60	
Henry F. Jenks.....	40 00	
S. P. Jones.....	10 00	
C. M. Kemp Manufacturing Co.	6 50	
Lead Lined Iron Pipe Company	252 71	
Locke Regulator Co.....	100 00	
Ludlow Valve Manufacturing Co.....	1,249 59	
W. A. Mack & Co.....	2 04	
Michigan Brass and Iron Works.....	697 80	
Mowry & Philips, for lead....	152 07	
Nashua Iron and Steel Co.....	16 98	
National Meter Co.....	9,254 15	
Neptune Meter Co.....	168 00	
Perrin, Seamans & Co.....	15 75	
Pittsburg Meter Co.....	18 60	
W. H. Ramsdell.....	18 00	
Scannel & Wholey.....	42 84	
Anthony P. Smith.....	173 00	
A. P. Smith Manufacturing Co.	143 50	
Staples Bros.....	415 50	
Thompson Meter Co.....	127 55	
Walworth Manufacturing Co.	9 90	
Warren Foundry and Machine Co.....	50 00	
R. D. Wood & Co.....	12,532 05	
Henry R. Worthington.....	102 29	
		$ 30,872 31
Paid for SUNDRIES :		
To Appropriation for Roads and Bridges, for services of City Engineer.....	$ 450 00	
Appropriation for Watering Streets, for assessments....	14 18	
Amounts carried forward.....	$ 464 18	$ 182,441 49

Amounts brought forward.....	$ 464 18	$ 182,441 49
To Appropriation for Sewers and Drains, for use of sewer machine and engine.....	316 80	
Appropriation for Public Buildings, for labor and material.....	548 07	
Lowell Electric Light Corp., for lighting.....	332 90	
Lowell Gas Light Co., for gas	195 80	
N. E. Tel. and Teleg. Co., for service.....	465 03	
W. U. Teleg. Co., for service..	2 31	
Otis Allen & Son, for lumber..	141 36	
A. P. Bateman, for lumber....	4 40	
J. W. Bennett, for door.....	1 50	
A. L. Brooks & Co., for lumber	40	
Burnham & Davis, for lumber	231 22	
Daniel Gage, for lumber.....	12 00	
Holmes & Bray, for plugs....	1 00	
Mark Holmes, Jr., for mauls..	18 00	
Howe Lumber Co., for lumber	671 20	
Wm. H. Kimball, for railing..	3 44	
Amasa Pratt & Co., for lumber	9 00	
Pratt & Forrest, for lumber..	33 75	
Howard S. Adams, for covering pipes.....	86 99	
C. E. Adams, for hardware, oil, etc.....	110 71	
American Bolt Co., for bolts, platform, etc.....	266 84	
O. E. Averill, for blacksmithing.....	4 70	
W. T. S. Bartlett, for hardware	16 53	
Boutwell Bros., for iron and steel.....	32 87	
Challenge Tube Cleaner Co., for tube, cleaner, blades and springs.....	5 25	
W. W. Carey, for pulleys and labor.....	14 60	
C. O. A. Grover, for steel stamp	2 50	
Groton Bridge and Manufacturing Co., for labor and material.....	23 45	
Amounts carried forward.....	$ 4,016 80	$ 182,441 49

Amounts brought forward.....	$ 4,016 80	$ 182,441 49
To Henry C. Girard, for hardware and tools.....	321 41	
Josiah Gates & Sons, for leather and lacings.....	55 02	
Haley, Brennan & Co., for tools	95 68	
Howe, Brown & Co., for tools	9 17	
Wm. H. Hope & Co., for labor	50	
Henry F. Jenks, for drinking cups.....	12 00	
Alvin Lawrence, for repairing clock.....	2 50	
Lowell Iron Co., for iron.....	15	
Lowell Machine Shop, for labor and use of patterns..	14 66	
Lowell Steam Boiler Works, for steel and labor.....	2 42	
James F. McElholm, for zincs and labor.....	2 66	
H. Mueller Mfg. Co., for ratchet handles.....	13 88	
A. F. Nichols, for castings...	269 93	
Priest, Page & Co., for scales..	175 00	
S. C. Smith, for cap screws...	4 54	
Staples Bros., for pipe, boxes, etc.....	195 00	
J. W. Stewart, for solder and labor.....	4 13	
H. B. Shattuck & Son, for hardware.....	35	
Thompson Hardware Co., for hardware and tools.....	31 02	
Union Brass Foundry, for couplings, castings, composition, etc.....	76 00	
Henry F. Whiting, for leather	2 33	
H. H. Wilder & Co., for tunnel and screens.....	6 63	
D. H. Wilson & Co., for valves and stems.....	12 88	
Adams & Co., for furniture...	24 35	
John Cross, for storage and labor on awnings.....	2 00	
Sylvester Bean, for brush, turpentine, glass, labor, etc....	9 68	
Amounts carried forward.....	$ 5,360 69	$ 182,441 49

Amounts brought forward.....	$ 5,360 69	$ 182,441 49
To F. M. Bill, for soap.....	8 00	
Borne, Scrymser Co., for oil..	56 19	
Boston Engineers' Supply Co., for oil, packing, etc.....	88 42	
Brooklyn Varnish Manfg. Co., for enamel.....	131 25	
C. B. Coburn & Co., for oil, packing, felt, etc.....	400 29	
Walter Coburn & Co., for bagging.....	3 94	
A. W. Chesterton & Co., for oil and packing.....	142 99	
Donovan & Co., for exploders, forcite, etc.....	19 06	
Ellingwood & Co., for soap...	1 30	
John J. Farrell, for horse powder.....	50	
J. B. Goodwin, for window screens.....	5 00	
Hinds & Coon, for packing....	10 00	
O. A. Knapp, for paper and hanging.....	14 53	
Leighton Bros., for chimneys, lamps, etc.....	6 32	
Leonard & Ellis, for oil.....	107 80	
Lowell Felting Mills, for felt..	4 00	
Miller Bros., for pearline and vinegar.....	40	
Robert W. Neff, for enamel black.....	6 00	
Wm. Nichols, for candles, exploders, matches, etc.....	28 59	
Pacific and Overland Tea Co., for pitcher.....	30	
J. A. Spiers, for harness dressing.....	1 00	
W. H. Spalding & Co., for oil, paint, brushes, etc.....	182 65	
Talbot Dyewood and Chemical Co., for soldering fluid, oil, etc.....	87 61	
Vacuum Oil Co., for oil.....	84 95	
Campbell & Hanscom, for printing and advertising....	74 75	
Amounts carried forward.....	$ 6,826 53	$ 182,441 49

Amounts carried forward.....	$ 6,826 53	$ 182,441 49
Courier-Citizen Co., for envelopes, printing and advertising.....	267 42	
Daily News Co., for advertising	27 20	
Dumas & Co., for blank books, paper, etc.....	381 98	
Engineering News Publishing Co., for subscription.....	5 00	
Engineering Record, for subscription.....	5 00	
Fire and Water, for advertising and subscription.....	7 50	
Lowell Daily Sun, for advertising.....	65 09	
Morning Mail Co., for printing and advertising.....	179 22	
Adams & Co., for covering frame.....	25	
Frank P. Bridges, for pens....	5 00	
H. V. Huse, for prnting.....	4 75	
Thomas H. Lawler, for stationery, typewriter, etc.....	105 35	
G. C. Prince & Son, for stationery.....	19 29	
L. J. Richards & Co., for atlas of Lowell.....	25 00	
J. L. Severance, for stamps....	65	
Spencer & Co., for lettering books.....	2 50	
The Engineering Record, for advertising.....	12 00	
Tilton & Company, for stationery.....	15 75	
Thompson & Hill, for printing	427 60	
F. S. Webster & Co., for typewriter ribbon.....	2 00	
Edward Cawley, for pipe and cement.....	167 90	
P. Conlan, for mason work and material.....	843 57	
John Carr & Sons, for stone work.....	78 00	
Philias David, Jr., for painting Superintendent's house.....	70 00	
Amounts carried forward.....	$ 9,544 55	$ 182,441 49

Amounts brought forward.....	$ 9,544 55	$ 182,441 49
To John W. Fletcher, for painting smoke stack.....	25 50	
A. H. Kittredge, for battery, forcite, wire, etc.....	49 75	
Wm. E. Livingston, for brick, cement, kaolin, lime, etc....	231 48	
Staples Bros., for brick, cement, stop cock, boxes, etc.	541 12	
Wm. H. Ward, for labor at Moody Street Bridge.....	35 00	
E. A. and A. T. Smith, for concrete.....	46 90	
Samuel E. Snow, for mason work and material.....	19 50	
S. H. Weaver & Son, for roofing.....	47 81	
Thomas P. Boulger, for rubber boots.....	7 00	
O'Sullivan Bros., for rubber boots.....	38 00	
Durant & Rogers, for badges..	9 50	
H. C. Church & Son, for insurance.....	400 00	
Home Guaranty Mutual Insurance Co., for insurance.....	110 00	
Hydraulic Construction Co., for pumping water.....	6,740 09	
B. F. Smith & Brother, for pumping water.....	9,391 57	
Wm. P. Atwood, for analysis of boiler scales.....	16 00	
George Bowers, for postage and telegrams.....	1 70	
J. W. Crawford, for expenses of Water Board.....	102 97	
George A. Nelson, for photographs.....	14 40	
Robert J. Thomas, for expenses of Water Board.....	4 40	
Lowell and Suburban Street Railway Co., for use of special car.....	9 00	
C. K. Miller, for railroad ticket	20 25	
Charles M. Dickey, for entertaining guests.....	37 00	
Amounts carried forward.....	$ 27,443 49	$ 182,441 49

Amounts brought forward.....	$ 27,443 49	$ 182,441 49
To Merrimac House, for entertaining guests.....	44 20	
Richardson's Hotel, for refreshments.....	55 75	
Frank E. Shaw, for entertainment of guests.....	80 00	
Proprietors of Locks and Canals, for rent of land.....	362 50	
Town of Chelmsford, for tax of 1896.....	68 50	
D. N. Patterson, for professional services.....	5 00	
Charles H. Ricker, for professional services.....	35 00	
W. A. Sherman, for medicine and professional services...	2 00	
Ame & Co., for standard food	27 00	
Horace P. Beals, for hay.....	355 95	
Coffey Bros., for oats.....	115 91	
Nazare Denault, for cutting and teaming hay.....	65 00	
T. J. McDonald, for grain and oat meal.....	89 00	
E. S. Sherman & Co., for salt..	75	
Alba G. Stiles, for grain.....	7 00	
A. G. Stiles & Co., for oats....	61 25	
E. N. Wood & Co., for oats and straw.	107 55	
Robert Barris, for repairing harnesses.....	22 36	
E. P. Bryant, for repairing carriages.....	58 50	
T. M. Bolton, for repairing harnesses.....	11 20	
A. H. Cluer, for duck cover and repairing harnesses.....	24 30	
Cahill Bros., for shoeing horses	57 00	
J. C. Donovan, for repairing harness.....	2 75	
A. R. Kingsbury, for shoeing horses.....	12 10	
Henry Reynolds, for shoeing horses.....	58 10	
Sawyer Carriage Co., for repairing carriages.....	162 69	
Amounts carried forward.....	$ 29,334 85	$ 182,441 49

Amounts carried forward.....	$ 29,334 85	$ 182,441 49
To J. H. Swett, for wagon and repairing carriages.....	176 21	
Willet Bros., for shoeing horses	53 15	
Wm. F. Stevens, for repairing boat.....	4 00	
T. Costello & Co., for damage caused by water flooding cellar.....	100 00	
James U. Gage, for use of land	75 00	
Thomas F. Fay, for cleaning vault.....	6 00	
Charles P. Conant, for repairs on Superintendent's house..	128 80	
B. G. Brown, for teaming.....	29 75	
Conners Bros., for teaming....	61 00	
C. H. Hanson & Co., for teaming.....	8 00	
John A. Simpson, for teaming	17 50	
J. H. Sparks, for carriage hire	135 00	
George E. Stanley, for transportation.....	92 00	
American Express Co., for transportation.....	24 95	
Manchester and Concord Express Co., for transportation	1 45	
N. Y. B. Des. Ex. Co., for transportation.....	9 60	
Post-Gardner Ex. Co., for transportation.....	25	
Boston and Maine Railroad, for transportation.....	884 77	
N. Y., N. H. and H. R. R. Co., for transportation.....	26 82	$ 31,169 10
Total Expenditures for the year 1896.....		$ 213,610 59
Balance undrawn Dec. 31, 1896..		36,279 81
		$ 249,890 40

DRIVEN WELL PLANT.

Balance undrawn Jan. 1, 1896..	$ 59,312 58	
		$ 59,312 58

EXPENDITURES.

Paid for SUNDRIES:

To Appropriation for Roads and Bridges, for labor and material	$ 32 76	
Appropriation for Water Works, for labor	1,045 50	
Sundry persons, for labor	3,630 25	
Hydraulic Construction Co., balance due on contract for wells	35,123 50	
B. F. Smith & Bro., for pumping water	654 90	
B. F. Smith & Bro., on account of contract for wells	13,461 70	
Lowell Gas Light Co., for gas	9 00	
N. E. Tel. and Teleg. Co., for service	52 71	
Howe Lumber Co., for lumber	34 60	
Talbot Dyewood and Chemical Co., for salamoniac	48	
C. G. Coburn, for rosin	40	
Edward Cawley, for cement	12 00	
James A. Davis & Co., for cement	36 00	
Amount carried forward	$ 54,093 80	

Amount brought forward.....	$ 54,093 80		
To Wm. E. Livingston, for cement	87 50		
E. A. Wilson Agt., for cement	5 75		
S. H. Weaver & Son, for gravel bags.....	2 25		
P. H. Rafter, for land.....	500 00		
Wm. H. Ward, for use of engines and pumps.....	358 00		
A. M. Blake, for teaming.....	60 00		
C. H. Hanson & Co., for teaming.....	16 00		
G. E. Stanley, for transportation.....	111 26		
Total Expenditure.....		$ 55,234 56	
Balance undrawn Dec. 31, 1896..		4,078 02	
		$ 59,312 58	

SALARIES.

Balance undrawn Jan. 1, 1896..	$ 1,201 96	
Appropriation.....	30,000 00	
Transferred from Appropriation for Interest.....	12 21	
		$ 31,214 17

Paid for SALARIES OF OFFICERS

To Wm. F. Courtney, Mayor.....	$ 2,500 00
Charles F. Coburn, City Treasurer and Collector of Taxes	2,700 00
Girard P. Dadman, City Clerk	1,800 00
David Chase, Auditor.....	1,800 00
Francis W. Qua, City Solicitor	2,000 00
James H. Cahill, City Messenger.....	1,200 00
Owen P. Porter, City Physician.....	700 00
James R. Fulton, Sealer of Weights and Measures.....	300 00
Lawrence J. Thyne, Pound Keeper.....	5 00
Samuel Palmer, Fish Warden	70
Orren C. Carleton, Fish Warden.....	8 47
Thomas O. Allen, Inspector of Milk, Vinegar, etc.....	1,500 00
Abel Wheeler, Assessor of Taxes.....	2,250 00
Nathan D. Pratt, Assessor of Taxes.....	2,250 00
Amount carried forward.....	$ 19,014 17

Amount brought forward.....	$ 19,014 17	
To John P. Mahoney, Assessor of Taxes.....	2,250 00	
Frank B. Hawes, Assistant Assessor.....	1,200 00	
Robert L. Read, Assistant Assessor.....	1,200 00	
George A. Locke, Assistant Assessor.....	1,200 00	
C. Arthur Abbott, Assistant Assessor.....	1,200 00	
Avila Bourbounierre, Assistant Assessor.....	1,200 00	
Henry Hoole, Assistant Assessor.....	1,200 00	
Frank N. Owen, Clerk Common Council.....	250 00	
W. A. Sherman, Inspector of Cattle.....	500 00	
Girard P. Dadman, Registrar of voters.....	500 00	
Edwards Cheney, Registrar of voters.....	500 00	
James F. Owens, Registrar of Voters.....	500 00	
John P. Farley, Registrar of Voters.....	500 00	
Total Expenditure for the year 1896.....		$ 31,214 17

STATE AID.

Balance undrawn Jan. 1, 1896..	$ 14,838 77	
		$ 14,838 77

RECEIPTS.

From Sundry persons, cash returned to Treasury.....	$ 125 00	
Commonwealth, reimbursement for State Aid of 1895.	12,061 00	$ 12,186 00
		$ 27,024 77
Paid Sundry persons, State Aid. for 1896.....	$ 14,131 00	
		$ 14,131 00
Transferred to Appropriation for Soldiers' Relief.....	$ 1,500 00	
		$ 1,500 00
		$ 15,631 00
Balance undrawn Dec. 31, 1896..		11,393 77
		$ 27,024 77

MILITARY AID.

Balance undrawn Jan. 1, 1896..	$ 2,846 15	
Appropriation.....	3,000 00	
		$ 5,846 15

RECEIPTS.

From Sundry persons, cash returned to Treasury.....	$ 60 00	
Commonwealth, reimbursement for Military Aid for 1895.....	3,112 50	3,172 50
		$ 9,018 65
Paid Sundry persons, Military Aid for 1896.....	$ 6,365 00	
		$ 6,365 00
Balance undrawn Dec. 31, 1896..		$ 2,653 65
		$ 9,018 65

SOLDIERS' RELIEF.

Balance undrawn Jan. 1, 1896..	$ 511 71	
Appropriation.....	4,000 00	
		$ 4,511 71

RECEIPTS.

From Commonwealth, for burial of Soldiers and Sailors.....	$ 241 00	
City of Boston, for aid rendered Patrick Dwyer.....	66 60	
City of Newton, for aid rendered Mary A. Doherty....	120 00	
Town of Lynnfield, for aid rendered George A. Abbott....	167 00	
Hubert M. Potter, for aid for sundry persons.....	44 00	
Sundry persons, cash returned to Treasury.....	57 00	$ 695 60
		$ 5,207 31
Transferred from Appropriation for State Aid.....		1,500 00
		$ 6,707 31

EXPENDITURES.

Paid for SUNDRIES:

To Appropriation for Paupers, for aid rendered Mrs. Joseph Larrabee and Patrick Dwyer....	$ 44 50
Amount carried forward.....	$ 44 50

Amount brought forward	$ 44	50
To H. M. Potter, for office expenses.....	26	20
City of Boston, for aid rendered Frank Heenan.....		60
City of Cambridge, for aid rendered Mrs. Michael Sheridan	72	00
Town of Danvers, for aid rendered Levi D. Stuart.....	34	00
Lowell Hospital Association, for aid rendered Margaret Larrabee.....	24	25
St. John's Hospital, for board and medicine for Thomas Toohey.....	25	00
Charles H. Ricker, for professional services.....	6	00
Courier-Citizen Co., for books	4	00
Fred M. Barney & Co., for groceries.....	91	00
P. J. Brady, for groceries....	115	00
Buttrick & Co., for groceries..	29	00
Campbell & Oakes, for fuel...	18	00
S. K. Chase, for provisions...	76	00
Cook Bros., for groceries.....	5	98
Charles M. Dickey, for refreshments.....	1	25
Frank E. Fox, for wood.....	2	00
L. C. Hall, for provisions.....	4	00
D. W. Horne & Son, for coal..	10	63
A. M. Huntoon & Co., for shoes	6	75
Keefe Bros., for provisions...	109	80
Wm. Kittredge Co., for coal..	60	38
Alfred Leblanc, for provisions	84	00
Lowell One Price Clothing Co., for clothing.....	6	25
George Lynch, for fuel and groceries.....	105	25
Lowell Gas Light Co., for coke	2	25
Miller Bros., for groceries....	222	50
O'Sullivan Bros., for shoes...	1	50
W. H. Parker & Sons, for wood	8	00
S. W. Parkhurst, for groceries	12	00
R. D. Snow, for wood.....	6	85
F. R. Strout, for provisions....	13	00
Stanley & Co., for fuel.....	222	98
Amount carried forward	$ 1,450	92

Amount brought forward.....	$	1,450 92
To P. P. Stiles & Co., for groceries		390 65
Spinney & Salter, for groceries		24 00
R. E. Spinney, for groceries..		76 00
M. A. Taylor, for groceries....		242 82
J. W. Brooks, for burial of Anson S. Goodrich and Silas Howard.....		70 00
Peter Davey, for burial of Wm. Kelly.....		35 00
J. H. McDermott, for burial of John McManus and Thomas Tully.....		70 00
C. H. Molloy, for burial of Thomas Mulhearn.....		35 00
James F. O'Donnell, for burial of James Crawford, James Ivory, Hannah Mead and Patrick Sherlock.....		140 00
J. F. Rogers, for burial of Thomas Toohey.....		35 00
Thomas Kerwin, for carriage hire.....		50
Albert Burnett, for teaming..		2 50
J. W. MacDonald, for teaming		8 50
Sundry persons, aid rendered, as follows:		
George A. Abbott.....		84 00
Fanny C. Adams.....		3 15
Annie Annis.....		6 00
Jessie E. Bean.....		72 00
Mary C. Bushy.....		96 00
Ephriam Brown.....		53 60
Daniel A. Brown.....		12 00
Wm. J. Corbett.....		6 00
Mrs. W. Conners.....		16 00
John Cuddihy.....		72 00
Abby A. Davis.....		116 00
Charles A. Donoghue.....		20 00
Bridget Dunlay.....		120 00
Annie Farrar.....		32 00
B. F. Foster.....		144 00
Joseph M. Fowler.....		120 00
Harriet Furlong.....		32 00
Amount carried forward.....	$	3,585 64

Amount brought forward	$ 3,585	64
To Bernard Gannon	48	00
John Gillogly	19	75
Mary A. Goodwin	15	00
Lydia M. Jenkins	72	00
Eliza Jordan	120	00
Ida Kidder	105	00
Anna Kittredge	120	00
Wm. A. Kneeland	108	00
Eliza Lane	30	00
James B. Larrabee	44	00
Margaret Larrabee	5	00
Jennie E. Lang	180	00
John L. Lairdeson	5	00
Mary Lawn	48	00
Honora Lynch	30	00
Thomas Mahoney	8	00
James McKenna	4	00
Jane McQuade	72	00
Michael Mulcahy	20	00
Freeman Miles	100	00
John Montgomery	90	00
Sarah Mulhearn	55	00
Rebecca Mullen	120	00
May A. Mullins	72	00
Mary A. Murray	69	50
Isabella O'Brien	80	00
John A. O'Brien	47	00
Mary A. O'Brien	72	00
Patrick O'Neil	30	00
Sybil Parsons	66	75
Mary Pepper	68	00
Ann Powers	24	00
Elizabeth Poor	30	00
John F. Palmer	57	00
Ann Robinson	72	00
Adeline Scannell	140	00
Frances C. Stickney	120	00
Thomas Scotchburn	72	00
Mary Sullivan	72	00
Ellen Sheridan	6	00
Nancy Sargent	96	00
Sophy G. Sargent	120	00
Ida I. Sleeper	36	00
Ellen Sullivan	38	00
Kate Taylor	72	00
P. P. Trowbridge	54	00
Amount carried forward	$ 6,518	64

Amount brought forward.....	$ 6,518 64	
To Eliza Thompson.....	5 00	
Sarah J. Whittier.....	128 00	
Total Expenditure for the year 1896.		$ 6.651 64
Balance undrawn Dec. 31, 1896..		55 67
		$ 6.707 31

CITY DEBT.

RECEIPTS.

From Appropriations for Water Works, for instalments on notes.....	$ 26,000 00	
C. F. Coburn, City Treasurer, cash and amount realized from sales of securities received from Commissioners of Sinking Funds on account of Fund for the reduction of ordinary city debt...	251,910 65	
		$ 277,910 65

TRANSFERS.

From fund for the reduction of ordinary city debt.....	$ 72,573 20	
National Bank Tax.....	4,563 75	$ 77,136 95
		$ 355,047 60

EXPENDITURES.

Paid on account of WATER DEBT :.....		
Commonwealth of Massachusetts.....	$ 5,000 00	
Lowell Institution for Savings	21,000 00	
		$ 26,000 00
Amount carried forward.....	$ 26,000 00	

Amount brought forward.....		$ 26,000 00
Paid on account of ORDINARY CITY DEBT :.....		
To Blake Bros., & Co.....	$ 22,000 00	
Central Savings Bank.....	14,000 00	
Commonwealth of Massachusetts.....	10,000 00	
Essex Savings Bank.....	5,400 00	
Lee, Higginson & Co.....	15,500 00	
Lowell Institution for Savings	131,290 00	
National Bank of Redemption.	7,500 00	
Salem Five Cent Savings Bank	5,000 00	
Seaman's Bank for Savings in the City of New York.....	10,000 00	220,690 00
Total Expenditure for the year 1896.		$ 246 690 00
Balance undrawn Dec. 31, 1896...		108,357 60
		$ 355,047 60

INTEREST.

Balance undrawn Jan. 1, 1896...	$ 14,862 19	
Appropriation.....	85,000 00	
		$ 99,862 19

RECEIPTS.

From sundry persons, interest on taxes.....	$ 7,178 19	
Blake Bros. & Co., premium on notes.....	81 00	
R. L. Day & Co., premium and accrued interest on bonds..	9,241 22	
Edgerley & Crocker, premium on note.....	13 25	
First National Bank, interest on daily balances.....	117 65	
Lowell Trust Company, interest on daily balances.....	5,146 00	
F. S. Mosley & Co., premium on note.....	61 08	
E. C. Stanwood, premium and accrued interest on bonds...	10,350 00	
E. H. Rollins & Son, premium on notes.....	1,780 00	$ 33,968 39
		$ 133,830 58

EXPENDITURES.

Paid on account of INTEREST :.....		
To Blake Bros. & Co.....	$ 3,570 00	
Amount carried forward.....	$ 3,570 00	

Amount brought forward..... ...	$ 3,570 00	
To Central Savings Bank.....	3,810 00	
Commonwealth of Massachusetts.....	3,350 00	
Essex Savings Bank.....	648 00	
Lowell Institution for Savings	35,481 19	
National Bank of Redemption	6,798 60	
Salem Five Cent Savings Bank	600 00	
Seaman's Bank for Savings, in the City of New York.....	4,000 00	
Trustees Public Burial Grounds.....	150 51	
Trustees Estate Thomas Nesmith.....	1,560 00	
Trustees Estate Jonathan Tyler.....	600 00	
Sundry persons, interest on bonds.....	39,087 36	
George F. Blair, interest on taxes.....	1 35	
Wm. H. Parker, interest on taxes.....	1 94	
Hiram D. Upton, interest on taxes.....	1 19	
Central Savings Bank (Temporary Loans).....	250 00	
Lowell Trust Company (Temporary Loan).....	361 11	
Lowell Institution for Savings Temporary Loan).....	2,540 62	
F. S. Mosely & Co., (Temporary Loan).....	559 72	
Suffolk Savings Bank.....	3,000 00	
Total Expenditure for the year 1896.....		$ 106,371 59

TRANSFERS.

To Appropriation for Paupers....	$ 15,000 00	
Appropriation for Roads and Bridges.....	854 17	
Appropriation for Sewers and Drains.....	843 95	
Appropriation for City Cemeteries.....	457 31	
Amounts carried forward.....	$ 17,155 43	$ 106,371 59

Amounts brought forward.....	$ 17,155 43	$ 106,371 59
Appropriation for Commons..	136 34	
Appropriation for Lighting...	492 16	
Appropriation for Salaries....	12 21	
Reserved Fund.....	454 98	$ 18,251 12
		$ 124,622 71
Balance undrawn Dec. 31, 1896..		9,207 87
		$ 133,830 58

NATIONAL BANK TAX.

Balance undrawn Jan. 1, 1896....	$ 4,691 10	
Assessed on stocks in National Banks owned by non-residents in 1896.....	14,941 02	
Commonwealth on account of tax of 1896.....	4,538 41	
		$ 24,170 53

EXPENDITURES.

Paid Commonwealth on account of tax of 1895.....	$ 127 35	
Commonwealth on account of tax of 1896.....	14,765 38	
Total Expenditure for the year 1896.....		$ 14,892 73
Transferred to Appropriation for City Debt.....		4,563 75
		$ 19,456 48
Balance undrawn Dec. 31, 1896..		4,714 05
		$ 24,170 53

STATE TAX.

Assessed in 1896	$ 53,914 29	
		$ 53,914 29

EXPENDITURES.

Paid Commonwealth State Tax of 1895 (ordinary)	$ 49,000 00	
Commonwealth, on account of Armory Loan	1,764 29	
Commonwealth, interest on Armory Loan	3,150 00	
		$ 53,914 29

COUNTY TAX.

Assessed in 1896	$ 70,288 17	
		$ 70,288 17
Paid County of Middlesex	$ 70,288 17	
		$ 70,288 17

CORPORATION TAX.

Received from Commonwealth of Massachusetts on account of Corporation Tax of 1896..	$ 69,823 67	
		$ 69,823 67

TRANSFERS.

To Appropriation for Schools....	$ 25,000 00	
Appropriation for Paupers...	10,000 00	
Appropriation for Police.....	5,500 00	
Appropriation for Commons..	1,000 00	
Appropriation for Lighting...	6,500 00	
Appropriation for Fire Department.....	15,000 00	
Appropriation for Health....	2,000 00	
Appropriation for Roads and Bridges.....	4,823 67	$ 69,823 67

TAXES.

The amount of Taxes assessed on the Polls and on the Real and Personal Estates, within the City of Lowell, for the year 1896, was as follows :

VALUATION OF AND TAX ON REAL AND PERSONAL PROPERTY.

VALUATION.		RATE.	TAX.
Personal Property	$15,967,762 00	$15 00 per $1,000	$ 239,516 43
Real Estate.....	53,942,710 00	$15 00 per $1,000	$ 809,140 65
Total Valuation...	$69,910,472 00	Tax on Property	$1,048,657 08
Number of Polls, 25,320, @ $2.00 each.....			50,640 00
			$1,099,297 08
Tax assessed on shares of stock in the National Banks of Lowell, held by non-residents, and which are not included in the City Valuation.....		$ 14,941 02	14,941 02
			$1,114,238 10

APPROPRIATED AND ASSESSED IN 1896.

To City Appropriation.....	$ 945,300 00
State Tax.....	53,914 29
County Tax.....	70,288 17
National Bank Tax (non-residents)).....	14,941 02
Overlays.....	29,794 62
	$1,114,238 10

TAXES.

	Due Jan. 1, 1696. and Assessed.	Abated in 1895.	Collected in 1895.	Due Dec. 31, 1895.
Taxes of 1887	$ 218 88			$ 218 88
Taxes of 1888	462 55			462 55
Taxes of 1889	18,519 76			18,519 76
Taxes of 1892	11,849 54			11,849 54
Taxes of 1893	15,645 16			15,645 16
Taxes of 1894	35,918 93	218 61	21,759 57	13,940 75
Taxes of 1895	199,698 18	926 82	131,400 19	67,371 17
Taxes of 1896	1,114,238 10	4,502 06	905,181 14	204,554 90
	$1,396,551 10	$5,647 49	$1,058,340 90	$332,562 71

ABATEMENT OF TAXES.

Balance undrawn Jan. 1, 1896....	$ 18,635 78	
Overlays assessed in 1896.....	29,794 62	
Received from Tremont and Suffolk Mills, bills of April, 1891, returned to Treasury.....	6,265 97	
		$ 54,696 37

EXPENDITURES.

Paid ABATEMENTS AFTER PAYMENT:		
To Tremont and Suffolk Mills, on tax of 1888.....	$ 7,562 19	
Tremont and Suffolk Mills, on tax of 1889.....	7,492 18	
Sundry persons.....	1,320 88	
		$ 16,375 25
Abated by ASSESSORS BEFORE PAYMENT:		
Sundry persons on tax of 1894....	$ 218 61	
Sundry persons on tax of 1895....	926 82	
Sundry persons on tax of 1896....	4,502 06	$ 5,647 49
		$ 22,022 74
Balance undrawn Dec. 31, 1896..		32,673 63
		$ 54,696 37

TEMPORARY LOANS.

RECEIPTS.

From Blake Bros. & Co.	$ 100,000 00	
Central Savings Bank	25,000 00	
Edgerly & Crocker	100,000 00	
Lowell Institution for Savings	75,000 00	
Lowell Trust Company	25,000 00	
F. S. Mosely & Co	125,000 00	
State Street Safe Deposit and Trust Company	50,000 00	
Suffolk Savings Bank	100,000 00	
		$ 600,000 00

EXPENDITURES.

Paid Blake Bros. & Co.	$ 100,000 00	
Edgerly & Crocker	100,000 00	
Central Savings Bank	25,000 00	
Lowell Institution for Savings	75,000 00	
Lowell Trust Company	25,000 00	
F. S. Mosely & Co.	50,000 00	
State Street Safe Deposit and Trust Company	50,000 00	
		$ 425,000 00
Balance undrawn Dec. 31, 1896.		175,000 00
		$ 600,000 00

SINKING FUNDS.

City Hall and Memorial Building Sinking Fund.

Appropriated and assessed in 1896.....	$7,500 00	
		$7,500 00
Paid Commissioners of Sinking Funds	$7,500 00	
		$7,500 00

High School Sinking Fund.

Appropriated and assessed in 1896.....	$3,000 00	
		$3,000 00
Paid Commissioners of Sinking Funds	$3,000 00	
		$3,000 00

Extension Rogers Fort Hill Park Sinking Fund.

Appropriated and assessed in 1896.....	$6,000 00	
		$6,000 00
Paid Commissioners of Sinking Funds	$6,000 00	
		$6,000 00

Intercepting Sewer Fund.

Appropriated and assessed in 1896.....	$5,000 00	
		$5,000 00
Paid Commissioners of Sinking Funds	$5,000 00	
		$5,000 00

Water Loan Sinking Fund.

Appropriated and assessed in 1896.....	$16,000 00	
		$16,000 00
Paid Commissioners of Sinking Funds	$16,000 00	
		$16,000 00

Sinking Fund for High Service Water Supply.

Appropriated and assessed in 1896.....	$1,800 00	
		$1,800 00
Paid Commissioners of Sinking Funds	$1,800 00	
		$1,800 00

FUND FOR ORDINARY CITY DEBT.

Balance undrawn Jan. 1, 1896....	$ 64,445 01	
		$ 64,445 01
Received from Commonwealth, on account of Corporation Tax of 1895.....	$ 8,159 47	
		8,159 47
		$ 72,604 48
Paid Commonwealth, on account of Corporation Tax of 1895....	$ 31 28	
Transferred to Appropriation for City Debt.....	72,573 20	
		$ 72,604 48

SINKING FUNDS.

The values of the several Sinking Funds Dec. 31, 1896, which apply to the reduction of the Water Debt, as reported by the Commissioners of Sinking Funds, are as follows :		
Water Loan Sinking Fund.....	$ 162,226 48	
Sinking Fund for High Service Water Supply.....	34,464 42	
		$ 196,690 90
The value of the several Sinking Funds Dec. 31, 1896, which apply to the reduction of the Ordinary City debt, as reported by the Commissioners of Sinking Funds, are as follows :		
Intercepting Sewer Fund.....	$ 85,397 05	
City Hall and Memorial Building Sinking Fund.....	71,983 47	
High School Sinking Fund.....	19,682 08	
Extension Rogers Fort Hill Park Sinking Fund.....	17,525 26	194,587 86
Total value of the Sinking Funds, Dec. 31, 1896.....		$ 391,278 76
The value of the Hapgood Wright Centennial Trust Fund Dec. 31, 1896, was.....	$ 2,399 54	
		$ 2,399 54

CARNEY MEDAL FUND.

Received of James G. Carney, Esq., in 1858 and 1859, the amount of two hundred dollars, which is to remain a perpetual debt of the City, the interest to be applied in payment for the "Carney Medals" to the departments of the High School, annually.....	$ 200 00	
Balance undrawn Dec. 31, 1896..		$ 200 00

DUE FROM THE CITY ON WATER LOAN.

DECEMBER 31, 1896.

Date of Securities.	To Whom Payable.	Amount.	Rate.	Interest—When Due.	Interest Due in 1897.	Notes and Installments. When Due.	Payments 1897.
1881, Nov. 1. .	Blake Bros. & Co.....	$75,000 00	4	May 1 and Nov. 1.	$ 3,000 00	1911, Nov. 1.	
1890, Nov. 1...	Sundry persons (bonds).....	1,000,000 00	4	May 1 and Nov. 1.	40,000 00	1920, Nov. 1.	
*1891, Mar. 9..	Lowell Institution for Savings	30,000 00	4	March 9 and Sept. 9.	1,080 00	1897, Mar. 9.	$ 6,000
‡1892, Dec. 1...	Lowell Institution for Savings.....	60,000 00	4	June 1 and Dec. 1.	2,400 00	1897, Dec. 1.	10,000
‡1894, Aug. 6...	Lowell Institution for Savings.....	40,000 00	3½	Feb. 6 and Aug. 6.	1,400 00	1897, Aug. 6.	5,000
‡1895, Aug. 7...	Sundry persons...	70,000 00	4	Feb. 7 and Aug. 7.	2,800 00	1897, Aug. 7.	5,000
		$1,275,000 00			$50,680 00		†$26,000

*New Pumping Engine. †Paid by Water Works. ‡Driven Well Plant.

DUE FROM THE CITY ON ORDINARY CITY DEBT.

DECEMBER 31, 1896.

Date of Securities.	To Whom Payable.	Amount.	Rate.	Interest—When Due.	Interest Due in 1897.	Notes and Installments, When Due.	Payments 1897.
*1871, Mar. 6..	Bequest of Thomas Nesmith	$ 25,000 00	6	March 6 and Sept. 6.	$1,500 00	Perpetual.	
†1871, April 10.	Bequest of Thomas Nesmith	1,000 00	6	April 10 and Oct. 10.	60 00	Perpetual.	
‡1878, May 10..	Bequest of Jonathan Tyler	10,000 00	6	May 10 and Nov. 10.	600 00	Perpetual.	
1882, Oct. 2 ...	Sundry persons (bonds)	56,000 00	4	April 2 and Oct. 2.	2,240 00	1902, Oct. 2.	
1883, April 2...	Perkins, Dupee & Co. (bonds)	94,000 00	4	April 2 and Oct. 2.	3,760 00	1903, April 2.	
1888, Aug. 1 ...	Lowell Institution for Savings	12,000 00	4	Feb. 1 and Aug. 1.	480 00	1897, Aug. 1.	$ 6,00000
1888, Aug. 7....	Salem Five Cent Savings Bank	10,000 00	4	Feb. 7 and Aug. 7.	400 00	1897, Aug. 7.	5,000 00
1888, Dec. 21...	Essex Savings Bank	10,800 00	4	June 21 and Dec. 21.	432 00	1897, Dec. 1.	5,400 00
1889, March 4..	Lowell Institution for Savings	12,000 00	4	March 4 and Sept. 4.	400 00	1897, Mar. 4.	4.000 00
1889, May 22 .	Lowell Institution for Savings	7,500 00	3⅝	May 22 and Nov. 22.	226 56	1897, May 22.	2,500 00
1889, June 3...	Lowell Institution for Savings	9,000 00	3⅝	June 3 and Dec. 3.	271 88	1897, June 3	3,000 00
1889, Dec. 1....	Blake Bros. & Co. (bonds)	66,000 00	4	June 1 and Dec. 1.	2,640 00	1897, Dec. 1.	22,000 00
1890, July 16. .	Lowell Institution for Savings	14,000 00	4	Jan. 16 and July 16.	560 00	1897, July 16.	3,500 00
1890, Oct. 1....	Sundry persons (bonds)	450,000 00	4	April 1 and Oct. 1.	18,000 00	1920, Oct. 1.	
1890, Nov. 29...	Lowell Institution for Savings	18,400 00	4	May 29 and Nov. 29.	736 00	1897, Nov. 29.	4,600 00
1891, April 1...	Sundry persons (bonds)	150,000 00	4	April 1 and Oct. 1.	6,000 00	1921, April 1.	
1891, May 16...	Lowell Institution for Savings	50,000 00	4	May 16 and Nov. 16.	1,800 00	1897, May 16.	10,000 00
1891, July 6....	Lowell Institution for Savings	30,000 00	4	Jan. 6 and July 6.	1,200 00	1897, July 6.	6,000 00
1891, Sept. 14..	Lowell Institution for Savings	23,500 00	4	March 14 and Sept. 14.	940 00	1897, Sept. 14.	4,700 00
1891, Oct. 19...	Central Savings Bank	9,500 00	4	April 19 and Oct. 19.	380 00	1897, Oct. 19.	1,900 00
1891, Nov. 28...	Lowell Institution for Savings	27,500 00	4	May 28 and Nov. 28.	1,100 00	1897, Nov. 28.	5,500 00
1892, April 9...	Central Savings Bank	30,000 00	4	April 9 and Oct. 9.	1,100 00	1897, April 9.	5,000 00
1892, May 4....	Lowell Institution for Savings	42,000 00	4	May 4 and Nov. 4.	1,540 00	1897, May 4.	7,000 00
1892, June 3..	Central Savings Bank	27,000 00	4	June 3 and Dec. 3.	990 00	1897, June 3.	4,500 00
1892, June 3.. .	Lowell Institution for Savings	21,000 00	4	June 3 and Dec. 3.	770 00	1897, June 3.	3,500 00
1892, Aug. 31...	Lowell Institution for Savings	42,000 00	4	Feb. 28 and Aug. 31.	1,680 00	1897, Aug. 31.	7,000 00
1892, Nov. 1....	Lowell Institution for Savings	60,000 00	4	May 1 and Nov. 1.	2,400 00	1897, Nov. 1.	10,000 00
1893, June 7....	Lowell Institution for Savings	27,930 00	4	June 7 and Dec. 7.	1,037 40	1897, June 7.	3,990 00
1893, June 17...	Lowell Institution for Savings	40,600 00	4	June 17 and Dec. 17.	1,508 00	1897, June 17	5,800 00
1893, Nov. 1....	Lee, Higginson & Co	108,500 00	4¼	May 1 and Nov. 1.	4,611 25	1897. Nov. 1.	15,500 00
1893, Dec. 3....	Lowell Institution for Savings	85,400 00	4	June 3 and Dec. 3.	3,416 00	1897, Dec. 3.	12,200 00
1894, Feb. 19...	Sundry persons (bonds)	70,210 29	3½	Feb. 19 and Aug. 19.	2,457 36	1904, Feb. 19.	
1894, Feb. 21...	Central Savings Bank	20,800 00	4	Feb. 21 and Aug. 21.	780 00	1897, Feb. 21	2,600 00
1894, Feb. 21. .	Lowell Institution for Savings	48,000 00	3⅞	Feb. 21 and Aug. 21.	1,743 75	1897, Feb. 21.	6,000 00
1894, April 1...	Lowell Institution for Savings	12,000 00	4	April 1 and Oct. 1.	450 00	1897, April 1.	1,500 00
1894, May 4 ...	Lowell Institution for Savings	40,000 00	3½	May 4 and Nov. 4.	1,312 50	1897, May 4.	5,000 00
1894, June 29..	Lowell Institution for Savings	40,800 00	3½	June 29 and Dec. 29.	1,348 75	1897, June 29	5,100 00
1894, July 12...	Lowell Institution for Savings	20,000 00	3½	Jan. 12 and July 12.	700 00	1897, July 12.	2,500 00
1894, Oct. 19...	Lowell Institution for Savings	5,600 00	3½	April 19 and Oct. 19.	196 00	1897, Oct. 19.	700 00
1894, Oct. 19 ...	Lowell Institution for Savings	80,000 00	3½	April 19 and Oct. 19.	2,800 00	1897, Oct. 19.	10,000 00
1895, Jan. 4 ...	Lowell Institution for Savings	10,800 00	4	Jan. 4 and July 4.	408 00	1897, Jan. 4.	1,200 00
1895, Jan. 4 ...	National Bank of Redemption, Boston	67,500 00	4	Jan. 4 and July 4.	2,550 00	1897, Jan. 4.	7,500 00
1895, Aug. 7...	Sundry persons	90,000 00	4	Feb. 7 and Aug. 7.	3,600 00	1897, Aug. 7.	10,000 00
1895, Nov. 27..	Seamen's Bank for Savings, N. Y	90,000 00	4	May 27 and Nov. 27.	3,600 00	1897, Nov. 27.	10,000 00
1896, May 5....	Lowell Institution for Savings	75,000 00	3⅝	May 5 and Nov. 5.	2,582 82	1897, May 5.	7,500 00
1896, May 6 ...	E. H. Rollins & Son	25,000 00	4	May 6 and Nov. 6.	950 00	1897, May 6.	2,500 00
1896, May 6 ...	E. H. Rollins & Son	25,000 00	4	May 6 and Nov. 6.	950 00	1897, May 6.	2,500 00
1896, July 1 ...	Sundry persons (bonds)	200,000 00	4	Jan. 1 and July 1.	8,000 00	1926, July 1.	
1896, Sept. 19..	New England Life Insurance Co., Boston	19,000 00	4	March 19 and Sept. 19.	760 00	1897, Sept. 19.	1,900 00
1896, Nov. 18...	E. H. Rollins & Son	50,000 00	4	May 18 and Nov. 18.	2,000 00	1897, Nov. 18.	5,000 00
1896, Nov. 18...	Susan B. Cabot	20,000 00	4⅛	May 18 and Nov. 18.	825 00	1897. Nov. 18.	20,000 00
	Amount of City Debt (ordinary)	$2,580,340 29		Int. Ordinary City Debt.	$100,793 27	Installments Ord. City Debt.	260,090 00
	Amount of Water Loan	1,275,000 00		Int. Water Loan.	50,680 00	Installments Ord. W't'r Debt	26,000 00
	Total amount of City Debt	$3,855,340 29		Total Int. on City Debt.	$151,473 27	Total Instal'ts City Debt.	288,090 00
	Amount of Sinking Funds	391,278 76					
	Net City Debt	$3,464,061 53					

*Interest on the same (for the poor.) †Interest on the same (for High Street Church.) ‡Interest on the same (for the poor.)

DEBTS DUE THE CITY.

Taxes of 1887	$ 218 83	
Taxes of 1888	462 55	
Taxes of 1889	18,519 76	
Taxes of 1892	11,849 54	
Taxes of 1893	15,645 16	
Taxes of 1894	13,940 75	
Taxes of 1895	67,371 17	
Taxes of 1896	204,538 23	
Sidewalk Assessments	7,499 94	
Sewer Assessments	18,939 49	
Watering Streets Assessments	6,558 30	
Water Rates, Service Pipe, etc.	28,696 28	
State Aid	14,131 00	
Military Aid	3,182 50	
		$ 411,553 50

REAL ESTATE OWNED BY THE CITY.

Memorial Building	$ 200,000 00
City Hall	410,000 00
Huntington and Jackson Halls	40,000 00
Market House	75,500 00
City Scales	750 00
High School-house, on Anne and Kirk Street	250,000 00
Bartlett School-house, on Clark Street	15,000 00
New Bartlett School-house, on Wannalancit Street	67,000 00
Butler School-house, on Gorham Street	63,000 00
Colburn School-house, on Lawrence Street	17,000 00
Edson School-house, on Highland Street	25,000 00
Franklin School-house, on Branch Street	25,000 00
Green School-house, on Merrimack Street	105,000 00
Moody School-house, on Rogers Street	80,000 00
Mann School-house, on Lewis Street	20,000 00
Varnum School-house, on Myrtle Street	40,000 00
Highland School-house, on Pine Street	67,000 00
Pawtucket School-house, on Mammoth Road	53,000 00
Lincoln School-house	77,000 00
Oaklands School-house	12,000 00
Primary School-house, on Powell Street, near Liberty Street	8,000 00
Primary School-house, on Powell Street, near Chelmsford Street	21,000 00
Primary School-house, on London Street	1,000 00
Primary School-house, on School Street	7,500 00
Primary School-house, on Pond Street	6,000 00
Primary School-house, on High Street	9,000 00
Primary School-house, on Carter Street	23,000 00
Primary School-house, on Fayette Street	3,500 00
Primary School-house, on Cross Street	24,000 00
Primary School-house, on Billings Street	16,000 00
Amount carried forward	$ 1,761,250 00

Amount brought forward.....	$ 1,761,250 00
Primary School-house, on Cornell and Middlesex Streets.....	16,000 00
Primary School-house, on West Sixth Street....	7,000 00
Primary School-house, on Mammoth Road.....	1,500 00
Primary School-house, on Lakeview Avenue....	8,000 00
Primary School-house, on Ames Street.....	8,000 00
Primary School-house, on Tenth Street.....	9,000 00
Primary School-house, on Favor Street.....	28,000 00
Primary School-house, on Cottage Street.....	4,500 00
Primary School-house, on Charles Street.....	20,000 00
Training School-house, on Charles Street.....	31,000 00
Primary School-house, on Cheever Street.....	12,000 00
Primary School-house on London Street.....	5,000 00
Primary School-house on Chapel Street.....	4,000 00
Primary School-house, on Central Street.....	13,500 00
Primary School-house, on Howard Street.....	5,000 00
Primary School-house, on Worthen Street.....	25,000 00
Primary School-house, on Lyon Street.....	20,000 00
Primary School-house, on Dover Street.....	13,500 00
Primary School-house, on Common Street.....	19,000 00
Primary School-house on Agawam Street.....	9,000 00
Primary School-house, on Grand Street.....	5,000 00
Primary School-house, on Varnum Avenue.....	850 00
Primary School-house, on Kirk Street.....	18,000 00
Primary School-house, at Middlesex Village.....	2,000 00
Primary School-house, on Weed Street.....	10,500 00
Hose Carriage-house, on Fletcher Street.....	18,000 00
Hose Carriage-house, on Central Street.....	11,000 00
Hose Carriage-house, on Warren Street.....	11,000 00
Engine-house, on Gorham Street.....	15,000 00
Engine-house, on Lincoln Street.....	5,500 00
Engine-house and Ward-room, on Branch Street.	22,000 00
Engine-house and Ward-room on Fourth Street.	15,000 00
Engine-house, on Palmer Street.....	76,000 00
Engine-house and Ward-room, on High Street...	24,000 00
Engine-house, on Westford Street.....	18,000 00
Chemical Engine-house, on Merrimack Street....	5,000 00
City Farm and Buildings.....	200,000 00
Land and Buildings on Fletcher Street.....	3,500 00
Land and Buildings on Fletcher, Cross and Lagrange Streets and Broadway.....	100,000 00
Public Landing in rear of Market House and Police Stable.....	9,500 00
Primary School-house, on Lexington Avenue....	4,300 00
Amount carried forward.....	$ 2,617,900 00

Amount brought forward.....	$ 2,617,900 00
Primary School-house, on Pine Street.....	17,000 00
Lot of Land on Chelmsford Street.....	5,000 00
Lot of Land on Fletcher and Bowers Streets.....	20,000 00
Lot of Land on First Street.....	190 00
Lot of Land on Tenth Street..... ...	5,000 00
North Common.....	112,900 00
Engine-house, on Lawrence Street...	26,000 00
Engine-house, on Mammoth Road.....	15,000 00
South Common.....	224,800 00
Mount Vernon Park.....	2,000 00
Belvidere Park.....	10,000 00
Wilson Park.....	1,600 00
Rogers Fort Hill Park.....	150,000 00
Tyler Park.....	5,000 00
Lot of Land on John Street.....	18,000 00
	$ 3,230,390 00

Water Works.

The Real Estate and Personal Property belonging to the City, occupied and used by the Water Works, net cost to Jan. 1, 1897.....	$2,579,977 19

Burial Grounds Owned by the City.

No. 1 Burial Ground, on School Street
No. 2 Burial Ground, on Gorham Street
Edson Cemetery, on Gorham Street

REAL AND PERSONAL PROPERTY OWNED BY THE CITY.

Real Estate	3,230,090 00
Water Works, net cost to Jan. 1, 1897	2,579,977 19
Personal property in care of Superintendent of Schools	28,000 00
Personal property in care of Superintendent of Streets belonging to Streets	31,101 64
Personal property in care of Superintendent of Streets belonging to wateringStreets	10,739 68
Personal property in care of Superintendent of Streets belonging to Sewers and Drains	17,378 39
Personal property in care of City Engineer	1,300 00
Personal property in care of superintendent of Institutions at City Farm	26,744 22
Personal property, belonging to Dispensary	2,203 48
Personal property in care of Secretary of Overseers of the Poor	1,045 65
Personal property in care of City Librarian	55,000 00
Personal property in care of Chief Engineer of Fire Department	117,000 00
Personal property in care of Superintendent of Street Lights	21,000 00
Personal property in care of Board of Health	10,618 75
Personal property in care of Sealer of Weights and Measures	250 00
Personal property in care of Superintendent of Public Buildings, not mentioned below	5,000 00
Personal property in care of Superintendent of City Cemeteries	1,525 25
Personal property in care of Milk Inspector	800 00
Furniture in Huntington and Jackson Halls	2,500 00
Furniture in School Houses	10,000 00
Amount carried forward	$ 6,152,274 25

Amount brought forward.....	$ 6,152,274 25
Bell on High Street Church.....	500 00
Clock on High Street Church.....	500 00
Personal property in care of Superintendent of Police.....	16,800 00
Personal property in care of Superintendent of City Scales.....	225 00
Debts Due the City.....	411,553 50
Cash in Treasury.....	200,198 68
	$ 6,782,051 43

COST OF SEWERS LAID IN 1896.

B Street.—From the sewer in Puffer Street, westerly, a distance of five hundred and twenty-four (524) feet, to a point near Wilder Street.	744 80
Bellevue Street.—Completed, from the terminus of the sewer laid in 1893 southerly a distance of five hundred thirty-nine (539) feet.....	954 07
Bellevue and Thayer Streets.—From the present sewer in Barclay Street easterly in Thayer Street to Bellevue Street and northerly in Bellevue Street, making a total distance of five hundred sixty-six (566) feet.	1,709 74
Boynton Street.—From the Centralville main sewer, westerly a distance of three hundred twenty-eight (328) feet.....	1,015 90
Branch Street.—(Rebuilt). From the sewer in Middlesex Street, easterly a distance of five hundred forty-nine (549) feet.....	502 74
Broadway.—From the terminus of the sewer formerly laid at Wilder Street, westerly a distance of one hundred sixty-seven (167) feet.....	745 99
Burgess and Grace Streets.—From the sewer in School Street, westerly in Burgess Street to Grace Street and northerly in Grace Street, making a total distance of two hundred forty-eight (248) feet.....	515 43
Burtt Street.—From the sewer in Westford Street, southerly a distance of six hundred eighty-seven (687) feet, to a point near Pine Street.....	1,473 85
Clare Street.—Completed, from the terminus of the sewer previously laid, northerly a distance of five hundred ninety-five (595) feet....	959 95
Amount carried forward..... $	8,622 47

Amount brought forward.....	$ 8,622 47	
Dover Street.—(Rebuilt.) From the sewer in Branch Street southerly, a distance of two hundred seventy-seven (277) feet..	451 71	
Durant Street.—From the terminus of the sewer previously laid, easterly a distance of two hundred fifty-six (256) feet.....	554 78	
Fernald Street.—From the sewer in Westford Street, southerly a distance of two hundred sixty-two (262) feet.....	434 46	
Fifth Avenue and Robert Street.—From the sewer in Mt. Grove Street, easterly a distance of seven hundred seventy-six (776) feet, to Mt. Hope Street, and in Robert Street northerly, from Fifth Avenue, a distance of six hundred fifty-eight (658) feet, to a point near Seventh Avenue, making a total distance of one thousand four hundred thirty-four (1434) feet....	14,488 28	
Gorham Street.—(Rebuilt.) From the sewer in Central Street at Middlesex Street, southerly a distance of eight hundred twenty (820) feet, to a point near Charles Street.....	7,395 70	
Hovey and Dalton Streets.—From the end of the sewer formerly laid, easterly in Hovey Street, and northerly in Dalton Street, to a point near Farm Land Road, making a total distance of four hundred seventy-four (474) feet....	825 23	
June Street.—From the sewer in Thirteenth Street, northerly a distance of two hundred nine (209) feet.....	420 86	
Kinsman Street.—(Rebuilt). From the sewer in Crosby Street, southerly, a distance of three hundred eighty-three (383) feet, to a point near Chambers Street.....	931 72	
Lincoln and Border Streets.—From the sewer in West Street, westerly in Lincoln Street to Border Street and southerly in Border Street to Blossom Street, making a total distance of seven hundred seventy (770) feet.....	9,169 97	
Lundberg Street.—From the sewer in Gorham Street easterly, a distance of eight hundred sixty-four (864) feet.....	1,395 60	
Mammoth Road.—From the end of the sewer formerly laid, southerly a distance of one hundred seventy-seven (177) feet.....	826 45	
Amount carried forward.....	$ 45,517 23	

Amount brought forward.....	$ 45,517 23
Moody Street.—From the Moody Street bridge northerly a distance of one hundred fifty-three (153) feet.....	370 64
Nineteenth Street.—From the sewer in Bridge Street easterly, a distance of eight hundred forty-two (842) feet, to a point near Beacon Street.....	4,267 38
Oaklands Main.—From the Merrimack River southerly to Andover Street, a distance of seven hundred and ninety-one (791) feet.....	28,022 35
Victoria Street.—From the sewer in Chelmsford Street, westerly a distance of two hundred eighty-eight (288) feet.....	613 82
Windsor Street.—From the sewer in Livingston Avenue across Princeton Street and southerly in Windsor Street, a distance of three hundred six (306) feet.....	581 85
Woodward Avenue.—From the terminus of the sewer formerly laid, westerly a distance of five hundred twenty-nine (529) feet.....	1,363 79
Total cost of sewers constructed in 1896.....	$ 80,737 06
Cost of sewers constructed previous to 1896..	$ 2,131,794 66
Total cost of construction of sewers to Jan. 1, 1897.....	$ 2,212,531 72

RENTS OF BUILDINGS OWNED BY THE CITY.

From Commonwealth, Armory.....$	1,700 00
County of Middlesex, Police Court Rooms.	750 00
$	2,450 00

LANDS AND BUILDINGS FOR WHICH THE CITY PAYS RENT.

To Boston and Maine Railroad Co., for ground rent of Huntington and Jackson Halls...$	475 00
Proprietors of Locks and Canals on Merrimack River for rent of land.....	331 00
$	806 00

DAVID CHASE, *Auditor.*

ACCOUNT OF THE CITY TREASURER AND COLLECTOR OF TAXES FOR THE YEAR 1896.

LOWELL, MASS., Jan 1, 1897.

TO THE HONORABLE THE CITY COUNCIL :

Gentlemen—I have the honor to submit the following report of the receipts and expenditures of the City of Lowell for the financial year 1896 :

Respectfully submitted,

CHARLES F. COBURN,

City Treasurer and Collector of Taxes.

Charles F. Coburn, City Treasurer and Collector of Taxes, in

DR. To cash received on account of:

Cash balance from 1895	$ 85,017 01	
Schools	33,039 66	
School Houses	3,706 99	
Roads and Bridges	18,652 32	
Reserved Fund	170,069 38	
Paupers	29,611 82	
Police	25,548 75	
Fire Department	5,411 45	
Sewers and Drains	97,417 25	
Commons	932 50	
Lighting	5,524 55	
Public Buildings	7,423 36	
Library	4,119 92	
Health	265 57	
Water Works	219,003 99	
Watering Streets	10,459 52	
Paving	25,010 05	
City Cemeteries	5,744 38	
State Aid	12,186 00	
Military Aid	3,172 50	
Soldiers' Relief	695 60	
Interest	33,968 39	
City Debt	277,910 65	
National Bank Tax	4,538 41	
Taxes of 1894	21,759 57	
Taxes of 1895	131,400 19	
Taxes of 1896	905,181 14	
Abatement of Taxes	6,265 97	
Temporary Loans	600,000 00	
Ordinary City Debt Fund	8,159 47	
Corporation Tax	69,823 67	
Lowell Textile School	25,000 00	
Pine Street School	4 37	
Carter Street School	4 48	
New School Houses	200,000 00	
Grade Crossings	20,000 00	
		$3,067,028 88
Carried forward		$3,067,028 88

account with the City of Lowell for the Financial Year 1896.

By cash paid on account of: Cr.

Schools	$261,637	13
School Houses	43,025	70
Roads and Bridges	175,269	35
Reserved Fund	123,468	44
Paupers	114,139	29
Police	129,592	33
Fire Department	132,920	29
Sewers	118,261	20
Commons	12,093	64
Printing and Advertising	4,834	48
Lighting	86,475	20
Public Buildings	19,703	06
Library	17,129	52
Health	45,587	11
Water Works	213,610	59
Watering Streets	10,235	62
Paving	16,164	37
City Cemeteries	9,456	05
City Hall and Memorial Building	1,560	00
Driven Well Plant	55,234	56
Salaries	31,214	17
State Aid	14,131	00
Military Aid	6,365	00
Soldiers' Relief	6,651	64
Interest	106,371	59
City Debt	246,690	00
National Bank Tax	14,892	73
State Tax	53,914	29
County Tax	70,288	17
Abatement of Taxes	16,375	25
Temporary Loans	425,000	00
Ordinary City Debt Fund	31	28
Extension of Moody Street	65,312	44
Addition to Police Stables	164	00
Lowell Textile School	25,000	00
Pine Street School	17,002	88
Bartlett School	67,063	83
Carter Street School	21,200	28
Addition to Lincoln School	18,565	25
Addition to Plain Street School	16,382	17
Addition to Varnum School	59	92
Lexington Avenue School	4,292	33
Grade Crossings	10,164	05
Water Loan Sinking Fund	16,000	00
City Hall and Memorial Building Sinking Fund	7,500	00
Carried forward	$2,851,030	20

Charles F. Coburn, City Treasurer and Collector of Taxes, in

DR. To cash received on account of:

Brought forward	$3,067,022 88
	$3,067,028 88

account with the City of Lowell for the Financial Year 1896.

By cash paid on account of:			Cr.
Brought forward	$2,851,030 20		
High School Sinking Fund	3,000 00		
Intercepting Sewer Sinking Fund	5,000 00		
High Service Sinking Fund	1,800 00		
Fort Hill Park Sinking Fund	6,000 00		
		$2,866,830 20	
Cash balance Jan. 1, 1897		200,198 68	
		$3,067,028 88	

CITY OF LOWELL.

IN BOARD OF ALDERMEN, January 19, 1897.

Read and referred to Committee on Accounts. Sent down for concurrence.

GIRARD P. DADMAN, City Clerk.

IN COMMON COUNCIL, January 19, 1897.

Read and referred in concurrence.

FRANK N. OWEN, Clerk.

STATEMENT OF THE CITY TREASURER RELATING TO SPECIAL FUNDS FOR CARE OF PUBLIC BURIAL GROUNDS.

LOWELL, MASS., Jan. 1, 1897.

TO THE HONORABLE THE CITY COUNCIL OF THE CITY OF LOWELL:

Gentlemen.—I have the honor to submit the following statement of special funds in my hands, deposited for the perpetual care of lots in the public burial grounds of the City of Lowell:

On hand Jan. 1, 1896	$4,200 00	
Received during the year:		
From Horace Ela	100 00	
Horace Ela	100 00	
Miles H. Battye	100 00	
Jane Grant	100 00	
Sarah Ann Greathead	100 00	
Lucy A. Wilkins	100 00	
Thomas A. Adams, Ex'r	50 00	
Jennie W. Revere	100 00	
Martha J. Hawes	100 00	
Heirs Joseph A. Masta	100 00	
Esteria L. Wheeler	100 00	
George W. Farnham	100 00	
Sarah F. Millard	100 00	
Dr. Worcester E. Boynton	300 00	
James Irish	100 00	
Josephine M. Greeno, Ex	100 00	
Andrew McKee	100 00	
Charles M. Williams, Adm'r	150 00	
Sarah H. Holden	100 00	
Total		$6,300 00

The above amount is invested as follows:

City Institution for Savings.....	$ 350 00	
Traders National Bank.....	1,450 00	
Lowell Five Cents Savings Bank.....	600 00	
Washington Savings Institution.....	1,400 00	
Lowell Institution for Savings.....	1,450 00	
Mechanics Savings Bank.....	1,050 00	
		$6,300 00

Respectfully submitted,

CHARLES F. COBURN,

City Treasurer.

REPORT OF THE COMMISSIONERS OF SINKING FUNDS FOR THE YEAR 1896.

LOWELL, MASS., January 1, 1897.

TO THE HONORABLE THE CITY COUNCIL OF THE CITY OF LOWELL:

Gentlemen—The Commissioners of Sinking Funds of the City of Lowell have the honor to submit the following report of the several Sinking Funds of said city, and of the Hapgood Wright Centennial Trust Fund, for the year 1896:

Full value of all Sinking Funds Jan. 1, 1896		$580,031 49
Full value of all Sinking Funds Jan. 1, 1897		391,278 76
Decrease during the year 1896		$188,752 73
Value of Water Loan Sinking Funds Jan 1, 1897	$196,690 90	
Value of Water Loan Sinking Funds Jan. 1, 1896	177,205 07	
Increase during the year 1896	$19,485 83	
Value of all other Sinking Funds Jan. 1, 1896	$402,826 42	
Value of all other Sinking Funds Jan. 1, 1897	194,587 86	
Decrease during the year 1896	$208,238 56	$208,238 56
Deduct increase in Water Loan Sinking Funds		19,485 83
Total decrease as above		$188,752 73

Value of Hapgood Wright Centennial Trust Fund Jan. 1, 1897.....	$2,399 54
Value of Hapgood Wright Centennial Trust Fund Jan. 1, 1896.....	2,307 27
Increase during the year 1896.....	$92 27

A statement of the receipts, payments and present value of the several Sinking Funds, and a list of the securities in each fund, follows:

	Securities.	*Cash.*	*Total.*
Water Loan Sinking Fund.			
On hand Jan. 1, 1896	$80,500 00	$65,499 14	$145,999 14
Received during 1896 :			
Cash—Annual appropriation		16,000 00	
Income on investments		4,790 00	
Income on bank deposits		1,006 28	
Securities bought during 1896	81,000 00		
Paid during 1896 :	$161,500 00	$87,295 42	
Cash—for securities purchased		86,568 94	
On hand Jan 1, 1897	$161,500 00	$726 48	$162,226 48
Increase during 1896			$16,227 34
Securities belonging to this fund :			
25 Town of Wayland coupon bonds, $1000, 5 per cent.	$25,000 00		
3 City of Springfield coupon bonds, $1000, 6 per cent.	3,000 00		
4 City of Lewiston coupon bonds, $1000, 5 per cent	4,000 00		
1 City of Portsmouth coupon bond, $1000, 4 per cent.	1,000 00		
1 City of Portsmouth coupon bond, $1500, 4 per cent.	1,500 00		
20 City of Everett registered bonds, $1000, 4 per cent.	20,000 00		
14 Town of Sharon coupon bonds, $1000, 4 per cent.	14,000 00		
12 Town of Athol coupon bonds, $1000, 4 per cent.	12,000 00		
1 City of Boston registered bond, $61,000, 4 per cent.	61,000 00		
5 City of Manchester coupon bonds, $1000, 4 per cent.	5,000 00		
15 City of Portsmouth coupon bonds, $1000, 4 per cent.	15,000 00		$161,500 00
Cash on deposit in Lowell Trust Co., 2½ per cent			726 48
Total			$162,226 48
High Service Water Loan Sinking Fund.			
On hand Jan. 1, 1896	$30,500 00	$ 705 93	$31,205 93
Received during 1896 :			
Cash—Annual appropriation		1,800 00	
Income on investments		1,405 00	
Carried forward	$30,500 00	$3,910 93	$31,205 93

	Securities.	*Cash.*	*Total.*
Brought forward	$30,500 00	$3,910 93	$31,205 93
Income on bank deposits		121 27	
Securities bought during 1896	3,000 00		
Paid during 1896:	$33,500 00	$4,032 20	
Cash—for securities purchased		3,067 78	
On hand Jan. 1, 1897	$33,500 00	$964 42	34,464 42
Increase during 1896			$3,258 49
Securities belonging to this fund:			
2 Town of Beverly coupon bonds, $1000, 4 per cent	$2,000 00		
4 City of Providence coupon bonds, $1000, 5 per cent.	4,000 00		
8 City of Providence coupon bonds, $1000, 5 per cent.	8,000 00		
1 City of Cambridge coupon bond, $1000, 6 per cent	1,000 00		
4 Town of Danvers coupon bonds, $1000, 5 per cent	4,000 00		
1 Town of Pawtucket coupon bond, $500, 5 per cent	500 00		
5 Town of Rockport coupon bonds, $1000, 4 per cent.	5,000 00		
1 City of Lynn registered bond, $6000, 4 per cent	6,000 00		
4 Town of Bradford registered bonds, $500, 4 per cent.	2,000 00		
1 City of Portsmouth coupon bond, $1000, 4 per cent.	1,000 00		$33,500 00
Cash on deposit in Lowell Trust Co., 2½ per cent			964 42
Total			$34,464 42

City Hall and Memorial Bldg. Sinking Fund

On hand Jan. 1, 1896	$41,000 00	$23,020 74	$64,020 74
Received during 1896:			
Cash—Annual appropriation		7,500 00	
Income on investments		1,960 00	
Income on bank deposits		575 01	
Securities bought during 1896	30,000 00		
Paid during 1896:	$71,000 00	$33,055 75	
Cash—for securities purchased		32,072 28	
On hand Jan. 1, 1897	$71,000 00	$983 47	$71,983 47
Increase during 1896			$7,962 73

	Securities.	*Cash.*	*Total.*
Securities belonging to this fund:			
20 Town of Bradford coupon bonds, $1000, 4 per cent.	$20,000 00		
5 City of Brockton coupon bonds, $1000, 4 per cent ..	5,000 00		
1 Town of Reading coupon bond, $1000, 4 per cent....	1,000 00		
6 Town of Wrentham coupon bonds, $1000, 4 per cent.	6,000 00		
9 Town of Arlington coupon bonds, $1000, 4 per cent	9,000 00		
1 City of Boston registered bond, $21,000, 4 per cent...	21,000 00		
4 Town of Bradford registered bonds, $500, 4 per cent	2,000 00		
7 City of Portsmouth coupon bonds, $1000, 4 per cent.	7,000 00		$71,000 00
Cash on deposit in Lowell Trust Co., 2½ per cent.....			983 47
Total.....			$71,983 47

Sinking Fund for the Reduction of the Ordinary City Debt.			
On hand Jan. 1, 1896.....	$161,000 00	$72,917 65	$233,917 65
Received during 1896:			
Cash—income on investments.....		2,330 00	
Income on bank deposits		1,415 21	
Securities bought during 1896.....	69,000 00		
	$230,000 00	$76,662 86	
Increase during 1896.....			123 60
Total.....			$234,041 25
Paid during 1896:			
Cash—for securities purchased.....		72,621 61	
Paid to City of Lowell to close fund.....		$4,041 25	
Securities transferred to City of Lowell to close fund.	$230,000 00	$4,041 25	234,041 25
On hand Jan. 1, 1897.....	$000,000 00	$000,000 00	$000,000 00

	Securities.	*Cash.*	*Total.*
Intercepting Sewer Sinking Fund.			
On hand Jan. 1, 1896	$76,500 00	$ 520 36	$77,020 36
Received during 1896:			
Cash—Annual appropriation		5,000 00	
Income on investments		3,510 00	
Income on bank deposits		230 46	
Securities bought during 1896	8,000 00		
Paid during 1896:	$84,500 00	$9,260 82	
Cash—for securities purchased		8,363 77	
On hand Jan. 1, 1897	$84,500 00	$897 05	85,397 05
Increase during 1896			$8,376 69
Securities belonging to this fund:			
4 City of Providence reg'd bonds, $10,000, 5 per cent	$40,000 00		
3 City of Providence reg'd bonds, $1000, 5 per cent	3,000 00		
1 City of Providence coupon bond, $1000, 5 per cent	1,000 00		
1 State of New Hampshire coupon bond, $500, 6 pr ct.	500 00		
10 City of Melrose coupon bonds, $1000, 4 per cent	10,000 00		
8 City of Melrose coupon bonds, $1000, 4 per cent	8,000 00		
1 City of Lynn registered bond, $14,000, 4 per cent	14,000 00		
6 Town of Bradford registered bonds, $500, 4 per cent	3,000 00		
5 City of Portsmouth coupon bonds, $1000, 4 per cent.	5,000 00		$84,500 00
Cash on deposit in Lowell Trust Co., 2½ per cent			897 05
Total			$85,397 05
High School Sinking Fund.			
On hand Jan. 1, 1896	$15,710 29	$ 606 29	$16,316 58
Received during 1896:			
Cash—Annual appropriation		3,000 00	
Income on investments		417 36	
Income on bank deposits		94 36	
Securities bought during the year	3,000 00		
Paid during the year:	$18,710 29	$4,118 01	
Cash—for securities purchased		3,146 22	
On hand Jan. 1, 1897	$18,710 29	$971 79	$19,682 08
Increase during 1896			$3,365 50

	Securities.	*Cash.*	*Total.*
Securities belonging to this fund :			
1 City of Keene coupon bond, $500, 4 per cent.	$ 500 00		
1 City of Salem coupon bond, $1000, 5 per cent	1,000 00		
1 City of Lynn coupon bond, $1000, 5 per cent	1,000 00		
1 Town of Arlington coupon bond, $1000, 5 per cent	1,000 00		
1 City of Lowell registered bond, $210 29, 3½ per cent.	210 29		
12 City of Taunton coupon bonds, $1000, 4 per cent	12,000 00		
2 Town of Bradford registered bonds, $500, 4 per cent.	1,000 00		
2 City of Portsmouth coupon bonds, $1000, 4 per cent	2,000 00		$18,710 29
Cash on deposit in Lowell Trust Co., 2½ per cent			971 79
Total			$19,682 08

Extension of Rogers Fort Hill Park Loan Sinking Fund.

On hand Jan. 1, 1896	$11,000 00	$ 551 09	$11,551 09
Received during 1896 :			
Cash—Annual appropriation		6,000 00	
Income on investments		422 96	
Income on bank deposits		9 88	
Securities bought during 1896	6,000 00		
	$17,000 00	$6,983 93	
Paid during 1896 :			
Cash—for securities purchased		6,458 67	
On hand Jan. 1, 1897	$17,000 00	$525 26	17,525 26
Increase during 1896			$5,974 17
Securities belonging to this fund :			
5 Town of Danvers coupon bonds, $1000, 4 per cent	$5,000 00		
1 City of Brockton registered bond, $1000, 4 per cent	1,000 00		
1 City of Lynn registered bond, $5000, 4 per cent	5,000 00		
6 City of Malden coupon bonds, $1000, 4 per cent.	6,000 00		$17,000 00
Cash on deposit in Lowell Trust Co., 2½ per cent			525 26
Total			$17,525 26

	Securities.	*Cash.*	*Total.*
Hapgood Wright Centennial Trust Fund.			
On hand Jan. 1, 1896		$2,307 27	$2,307 27
Received during 1896 :			
Cash—Interest on bank deposits		92 27	
On hand Jan. 1, 1897		$2,399 54	2,399 54
Increase during 1896			$92 27
Securities belonging to this fund :			
Cash—Deposited in Lowell Institution for Savings		$ 495 29	
Cash—Deposited in City Institution for Savings		1,904 25	$2,399 54
			$2,399 54

Respectfully submitted,

PETER F. CONATON,
STEPHEN B. PUFFER,
AUSTIN K. CHADWICK,

Commissioners of Sinking Funds of the City of Lowell for the year 1896.

CITY OF LOWELL.

IN BOARD OF ALDERMEN, January 12, 1897.

Read and referred to the Committee on Accounts. Sent down for concurrence.

GIRARD P. DADMAN, City Clerk.

IN COMMON COUNCIL, January 12, 1897.

Read and referred to Committee on Accounts in concurrence.

FRANK N. OWEN, Clerk.

REPORT OF COMMITTEE ON ACCOUNTS ON ANNUAL ACCOUNTS OF TREASURER AND SINKING FUND COMMISSIONERS.

To the City Council:

The Joint Committee on Accounts of the City Council of the City of Lowell, to whom was referred the Annual Report of the Treasurer, and Sinking Fund Commissioners, have attended to the business committed to them, and report.

In conformity to the provisions of Sect. 4, Chap. I, of the City Ordinances, the services of Clarence W. Whidden were secured. and as a result of same find that the above reports are correct, and we recommend that they be accepted and placed on file.

EDWARD T. GOWARD,
CHAS. F. LIBBY,
HENRY K. WHITE,

Joint Standing Committee on Accounts of the City Council of the City of Lowell, for the Year 1896.

CITY OF LOWELL.

IN COMMON COUNCIL, April 20, 1897.

Read and accepted and ordered on file; sent up for concurrence.

FRANK N. OWEN, Clerk.

IN BOARD OF ALDERMEN, April 27, 1897.

Read, accepted and ordered on file in concurrence.

GIRARD P. DADMAN, Clerk.

REPORT OF ACCOUNTANT.

LOWELL, MASS., March 27, 1897.

EDWARD T. GOWARD, Chairman Committee on Accounts,
Lowell, Mass.

MY DEAR SIR: — Having completed an examination of the books and accounts of the City Treasurer for the year 1896, I beg leave to offer the following report:

The debit entries on the cash book were checked as far as possible from the books of original entry.

The credit entries were properly vouched.

The cash in the office at close of business March 1, 1897, verified by actual count		$12,021 57
Deposit in the Lowell Trust Co., as certified by the accompanying letter	$107,781 52	
Less checks outstanding	1,179 28	
		106,602 24
Deposit in the Traders National Bank, as certified by the accompanying letter,	$55,922 39	
Less checks outstanding	7,656 18	
		48,266 21
Total amount		$166,890 02
Cash balance March 1, 1897, at close of business		166,890 02

The attached statement of the receipts and disbursements from Jan. 1, 1896, to March 2, 1897, verifies the Treasurer's annual report for 1896.

I examined the coupon payments for the year and found them correct with the following amounts unpaid:

Due April 1, 1895,	Miscellaneous Bonds	$20 00
Due Oct. 1, 1895,	" "	20 00
Due Nov. 1, 1895,	Water Loans	40 00
Due April 1, 1896,	Miscellaneous Bonds	20 00
Due April 2, 1896,	" "	20 00
Due Oct. 1, 1896,	" "	20 00
Due May 1, 1896,	Water Loans	80 00
Due Nov. 1, 1896,	" "	580 00
Total		$800 00

The list of unclaimed cash and checks in envelopes on hand at the last examination was verified. Vouchers were shown for the moneys paid, the balance being yet unclaimed. I herewith submit a complete list on hand March 2, 1897.

The Taxes, Water Rates, and Street Watering collections were verified by a trial balance of the several years accounts unsettled.

These trial balances were sufficiently close to assure me the correctness of the receipts.

The amounts entered as having been received of the several departments were verified by statements made to me by these departments.

At the request of the Commissioners of Sinking Funds, I made a careful examination of the books and securities of the several funds and found them in every way correct, and I have so certified to the Chairman of the Commission, Mr. Austin K. Chadwick.

At their request I gave to each Commissioner a detailed list of the securities belonging to each fund and I submit a copy herewith.

At the close of my examination of the securities of the Sinking Funds they were transferred to the newly elected Treasurer, Mr. Chas. F. Coburn.

Respectfully submitted,

CLARENCE W. WHIDDEN.

THE TRADERS NATIONAL BANK,
LOWELL, MASS., March 1, 1897.

CHARLES F. COBURN, ESQ., City Treasurer,
Lowell, Mass.

DEAR SIR: — This is to certify that the balance to the credit of the City of Lowell at the close of business this day, as shown by the books of this bank, is fifty-five thousand nine hundred twenty-two and thirty-nine one-hundreths dollars ($55,922.39).

Respectfully,

WM. F. HILLS,
Cashier.

LOWELL TRUST COMPANY,
LOWELL, MASS., March 1, 1897.

CHAS. F. COBURN, ESQ., City Treasurer,
Lowell.

DEAR SIR: — There is standing to the credit of the City of Lowell at this bank the sum of one hundred seven thousand seven hundred eighty-one and fifty-two one hundreths dollars ($107,781.52).

Yours truly,

GEO. M. HARRIGAN,
Actuary.

TRIAL BALANCE MARCH 2, 1897.

	DR.	CR.
Cash January 1, 1896	$85,017 01	
Schools	34,029 74	$290,724 15
School Houses	3,706 99	49,539 05
Streets	20,840 75	193,695 16
Reserved Fund	170,069 38	123,468 44
Paupers	31,108 00	128,917 01
Police	27,573 55	149,520 98
Fire Department	5,411 70	148,587 48
Sewers	99.507 34	121,869 61
Commons	932 50	12,517 90
Printing and Advertising		4,912 53
Lighting	5,542 26	96,322 79
Public Buildings	7,528 03	22,336 56
Library	7,813 71	18,867 99
Health	265 57	52,755 97
Water Works	234,100 90	230,895 03
Treasurer	390 05	1,209 43
Huntington Hall	605 00	1,345 03
Addition to Lincoln School		20,115 34
Addition to Varnum School		59 92
Addition to Plain Street School		17,161 89
Watering Streets	11,720 74	10,251 38
Paving	25,014 43	16,164 37
Corporation Tax	69,823 67	
City Cemeteries	5,934 13	10,262 57
City Hall and Memorial Building	112 50	1,560 00
Driven Well Plant		55,234 56
Amounts carried forward	$847,047 95	$1,778,295 14

	DR.	CR.
Amounts brought forward.....	$847,047 95	$1,778,295 14
Salaries		31,214 17
State Aid.....	12,215 00	16,822 80
" " I. S. & S.....	6 00	
Soldiers' Relief.....	766 00	7,651 87
Interest	36,726 11	121,299 02
City Debt.....	277,910 65	263,990 00
National Bank Tax.....	4,538 41	14,892 73
State Tax.....		53,914 29
County Tax.....		70,288 17
Taxes of 1893.....	47 56	
" 1894.....	21.807 85	
" 1895.....	134,387 25	
" 1896.....	951,788 62	
Clerk.....	342 31	956 93
Abatement of Taxes.....	6,265 97	16,375 25
Temporary Loans.....	700,000 00	425,000 00
Ordinary City Debt Fund.....	8,159 47	31 28
Extension of Moody Street.... ..		65,312 44
Water Loan Sinking Fund.....		16,000 00
City Hall and Memorial Building Sinking Fund.....		7,500 00
High School Sinking Fund.....		3,000 00
Intercepting Sewer Sinking Fund...		5.000 00
High Service Sinking Fund.....		1,800 00
Fort Hill Park Sinking Fund.....		6,000 00
City Scales.....	22 19	133 33
Sealer of Weights and Measures....	70 09	55 50
Amounts carried forward.....	$3,002,101 43	$2,905,532 92

	DR.	CR.
Amounts brought forward	$3,002,101 43	$2,905,532 92
Military Aid	3,172 50	7,527 00
Lowell Textile School	25,000 00	25,000 00
Pine Street School	4 37	17,786 90
Carter Street School	4 48	23,529 85
Grade Crossing	20,000 00	12,449 95
New School Houses	200,000 00	
Inspector of Milk and Vinegar	16 50	394 59
Addition to Police Station		164 00
Bartlett School		73,580 03
Lexington Avenue School		5,818 68
Assessors		3,286 25
Auditor		621 76
City Hall		1,174 31
Rifle Range		95 88
Mayor		674 35
Messenger		334 75
Solicitor		975 41
Engineering Department		2,242 48
Purchasing Agent		961 66
Incidentals		365 20
Elections		303 09
Heating City Hall and Memorial Building		580 19
Driven Wells No. 2		107 01
Cash on hand March 1, 1897		166,890 02
Total	$3,250,299 28	$3,250,299 28

INDEX.

TEMPORARY PUMPING STATION, WELL PLANT NO. 3.

TWENTY-FOURTH

ANNUAL REPORT

OF THE

LOWELL WATER BOARD

TO THE

CITY COUNCIL OF THE CITY OF LOWELL, MASS.,

AND THE

REPORTS OF THE SUPERINTENDENT OF WATER WORKS
AND OF THE CITY ENGINEER TO THE
WATER BOARD FOR 1896.

LOWELL, MASS.:
BUTTERFIELD PRINTING AND BINDING COMPANY.
1897.

CITY OF LOWELL.

IN BOARD OF ALDERMEN, February 1, 1897.

Received and ordered on file; sent down for concurrence.

GIRARD P. DADMAN, *City Clerk.*

IN COMMON COUNCIL, February 1, 1897.

Received and ordered on file, in concurrence.

FRANK N. OWEN. *Clerk.*

WATER DEPARTMENT, 1896.

WATER BOARD.

GEORGE E. PUTNAM, *President.*

Term expires second Monday in March, 1897.

AUGUST FELS,

Term expires second Monday in March, 1898.

STEPHEN H. JONES,

Term expires second Monday in March, 1899.

FRANK L. WEAVER,

Term expires second Monday in March, 1900.

CHARLES E. HOWE,

Term expired first Monday in January, 1897.

J. W. CRAWFORD, *Secretary and Clerk.*

ROBERT J. THOMAS, *Superintendent.*
GEORGE BOWERS, *City Engineer.*

D. B. H. BARTLETT, *Engineer.*
THOMAS MCLOUGHLIN, *Engineer.*
FRANK LAPOINT, *Reservoir.*
THOMAS F. DOYLE, *Foreman.*
WILLIAM JOYCE, *Asst. Foreman.*
JOHN E. LOWNEY, *Meters.*
ARTEMAS S. YOUNG, *Foreman Shop.*
A. F. COGER, *Hydrants and Gates.*
THOMAS ROGERS, *Services.*

OFFICE.

LEONARD T. FARRIS, *Service Clerk.*
GERTRUDE W. BYAM, *Bookkeeper.*
JULIA J. RAFTER, *Asst. Bookkeeper.*

INSPECTORS.

ROBERT GARDNER, JR.
GEORGE E. WORTHEN.
MICHAEL H. MCCUE.
GEORGE F. TILTON.
WALTER P. WILEY.

REPORT OF THE WATER BOARD.

Office of the Water Board,
City Hall,
Lowell, Mass., Jan. 11, 1897.

To His Honor the Mayor and the City Council of the City of Lowell.

In compliance with the requirements of the city ordinances, the Water Board herewith present the twenty-fourth annual report of the Water Board for the year ending December 31st, together with the superintendent's report of the operations and improvements made in the department during the year.

There was but one change in the personnel of the board from the previous year, Mr. Charles E. Howe succeeding Mr. William L. Hills as the member from the board of aldermen. Mr. Frank L. Weaver having been elected by the city council to succeed himself for the full term.

The board organized by re-electing Mr. Putnam president, and Mr. Thomas superintendent, and elected Mr. Crawford clerk and secretary of board.

On February 28th Smith Brothers commenced pumping water into the city main at the Boulevard plant, on the year's test, but on March 2d were compelled to stop owing to high water in the Merrimack river which flooded the station, and

owing to the collapse of a portion of the conduit no water could be run through it.

But on April 17th pumping was resumed and has continued ever since and has delivered an average of nearly four million gallons of water per day.

The break in the conduit was discovered on March 4th at a point in the tunnel near where Moody street extension crosses Gershom avenue, where a shaft was put down through the rock and then bricked up and backfilled, the bottom of the tunnel being about forty feet below the surface, and was caused by the forming of a large body of water on the surface, backed up by the Moody street extension forming a dam across the way, without means of escape except by percolation, and owing to improper backing of the brickwork the water got in behind it causing it to cave in. The brickwork was replaced by 48″ cast iron pipe with a 48″ manhole so that now the tunnel can be entered midway of its length for repairs or inspection. The cost of the repairs was:

For Labor	$6,160.20
Material	3,344.93
	$9,505.13
Deduct one-half cost of lumber used for other purposes afterwards	$ 412.88
	$9,092.25

During the period from March 4th to April 17th the city was dependent upon the well plants on the south side of the city and the reservoir, for the water supply, during which time the reservoir was lowered about five feet.

On March 27th the crank pin on the Morris engine broke while the engine was running, causing considerable damage to the engine, breaking the base of each cylinder, necessitating the putting in of new ones by the American Wheelock Engine

Co., but the labor has all been done by the regular employes of this department, and the engine was made ready to run again August 22d. The cost of the repairs, exclusive of the labor as above, has been $1,129.01.

On April 2d, Mr. Washington of the Hydraulic Construction Company announced to the board that he was ready to turn over to the city the pumping plant in Chelmsford which he had maintained for one year in accordance with the terms of the contract. He presented a schedule of the property at the station showing the cost, which was verified by the city engineer both as to articles enumerated and cost of same, showing the cost of the station to have been $10,712.32. A claim was also made for a further sum for excessive pressure over contract specifications, also for the cost of a new water end to Worthington pump claimed to have been broken by said extra pressure, but these claims were not allowed and a settlement was effected upon following terms:

Pumping plant	$ 8,000.00
Fourth payment 25% on two million galls. .	9,874.50
Full payment on one million galls. . .	19,749.00
	$37,623.50
Less amount advanced for tests . . .	2,500.00
	$35,123.50

And the city assumed charge of the plant Friday, April 24th, 1896. During the summer considerable work has been done on the premises, putting everything on a more permanent basis, and a coal bin was built with lumber that had been used on the conduit repairs.

Early in the year it was determined by the board to place meters on to property where it was known that large quantities of water was being wasted, including twenty-five bar-rooms, fourteen stables and some of the large blocks. Ninety meters

were thus placed, which showed a saving of 60,000 gallons of water per day in the second quarter. A few examples of what the meters found follow. The first column showing the amount charged on rates, the second the rate at which the meter showed the water was being used in the first quarter, and the next column shows the same for the second quarter. These are a few of the extreme cases, and is evidence of the cost to the city through indifference or penuriousness, where through defective plumbing the water is allowed to run to waste at from five to ten times the amount paid for, but when compelled to pay for it a remedy is applied with the result of a saving in water bills, and no one will believe that the result is obtained by any restriction in the legitimate use of the water; the water was simply wasted, and brought good to nobody. The list shows a great decrease in the amount of water in the second quarter, and in most cases at a rate which would make the yearly amount paid less than the faucet rate, except in the case of the bar-rooms, where small moters are used to run the beer pumps and use a great deal of water. Hereafter no bar-room will be furnished with water except through a meter.

	Yearly rates.	Meter per yr. by 1st qr.	Meter per yr. by 2d qr.
13 families, 2 stores	$144.00	$444.00	$106.96
4 families, 1 market	34.50	123.96	30.24
6 families	62.00	211.32	33.04
7 families	73.00	392.64	52.64
7 families, photo. gal., boarding h's'e.	190.00	885.20	185.84
4 families, large boarding houses	110.50	356.64	104.72
2 families, boarding houses	52.00	205.08	28.00
2 families, bar and laundry	80.00	158 80	73.36
8 families	64.00	360.08	31.36
1 family, bar	42.00	293.76	179.60
1 bar and restaurant	72.00	275.92	275.92
1 family and bar	28.00	128.80	128.80
6 families	72.00	997.84	417.12

1 family and bar	$41.25	$130 20	$130 20
13 families	147.00	316 00	125.00
4 families	34.50	125.44	21.28
4 families and bar	55.00	173.92	73.92
5 families and stable	49.50	373.44	23.52
1 family, bar, bottling establishment.	51.00	263.00	175.84
Bar, 6 stores, laundry	120.50	318.24	429.12
2 families	26.00	130.20	25.20
5 families	56.00	591.84	115.74
Bar and photograph gallery	52.00	184.28	319.76

In August a settlement was effected with Mr. P. H. Rafter whereby the city became owner of the 2.65 acres of land at Station No. 3 for $500; this completes the city's ownership of all the land occupied at this station.

As a result of the opening of the Moody street bridge, the land through which the water works conduit passes has come into the market, and in two instances houses have been built directly over the tunnel on Gardner avenue and close to the manhole where occurred the break in the tunnel. The water board upon learning of these preparations, visited the premises and voted to instruct the city solicitor to ask the court for an injunction enjoining any one from building upon the line of the conduit, and the matter remains in the hands of the city solicitor for final settlement.

The importance of a system of sewerage for this rapidly growing section, with the use of iron pipe in the vicinity of the conduit line, cannot be too strongly urged, as an aid to the maintenance of a pure water supply. The whole water supply for the city since the 22d day of February, 1896, has been obtained from the wells, and the city is wholly independent of the river for its water, and the supply is adequate for a long time if the consumption can be kept within the bounds of legitimate use by metering; if not so restricted it will be necessary to increase the supply within a short time. The agita-

tion of the meter question last year resulted in a large increase in the application for new meters, there having been over 500 new meters set exclusive of the ninety city meters, a reduction in the price of meters and an awakening to the economy of paying meter rates instead of faucet rates was responsible.

To obviate the many complaints of dirty water caused by the varying pressure resulting from pumping directly into the mains, it will be necessary to lay a new force main connecting the wells on the south side of the city with the reservoir, thereby maintaining a steady and even pressure in the pipes, avoiding the stirring up of the water in the pipes by changing currents.

The finances of the department as shown in the secretary's report, show the usual gratifying increase as follows:

Charged for water	$230,507.88
Other charges	17,533.48
Transfer account from 1895	32,571.09
	$280,612.45
Collections	$219,000.19
Discounts	22,898.25
Abated	10,017.73
Uncollected, to 1897	28,696.28
	$280,612.45
The charges for water by meter increased	$11,684.76
The charges for water by rate increased	391.59
	$12,076.35
Other charges decreased	$2,791.36
Net increase over 1895	$9,284.99

The income exceeded the out-go for the year by $5,393.40. The extraordinary expenses were the repairs to the conduit, and $3700 for new 10″ and 12″ pipe in anticipation of the grading of Princeton street. The balance to 1897 is $36,-279.81.

The great increase in the amount of abatements, being $10,017.73 against $3,428.99 in 1895, was caused by the great number of people who waited until receiving their annual rate bill before applying for a meter, and then the rate bill has to be abated from the time the meter is set.

The driven well balance Jan. 1, 1896, was		$59,312.58
Expended at "Chelmsford Plant"	$36,381.58	
"Boulevard Plant"	18,852.98	
		$55,234.56
Balance, 1897		$4,087.02

The secretary's report will show the details of receipts and expenditures more fully. In conclusion, the Water Board desires to congratulate the citizens of Lowell on the success attending the efforts to procure an adequate supply of ground water, and to testify to the faithful and intelligent services rendered by Superintendent Thomas and Engineer Bowers toward that end.

GEORGE E. PUTNAM,
AUGUST FELS,
S. H. JONES,
FRANK L. WEAVER,
CHARLES E. HOWE.

LOWELL WATER WORKS OFFICE,
January 1st, 1897.

TO THE LOWELL WATER BOARD:

Gentlemen: — Herewith I submit figures detailing the finances of the Lowell Water Works for the year ending December 31st, 1896.

J. W. CRAWFORD, *Clerk.*

TABLE I. FINANCIAL STATEMENT — LOWELL WATER WORKS, 1896.

	CHARGES.						RECEIPTS.			
	Water.			Other than water.	Total Charges 1896.	Total Charges 1895.	By Accounts.			
	Rate.	Metered.	Total.				Receipts.	Discounts.	Abatements.	Due.
Transfer	.....	.....	.....	.....	$32,571.09	$28,181.95	$28,282.74	$ 2,597.22	$ 858.32	$ 832.81
January	$ 123.86	$ 37.10	$ 160.96	$ 2,263.80	2,424.76	655.51	2,342.86	27.57	21.80	32.53
February	37.24	.....	37.24	969.66	1,006.90	1,643.18	*3.80 934.61	3.81	41.10	27.38
March	112,153.96	24,576.45	136.730.41	.....	136,730.41	132,190.07	114,928.40	13,450.59	8,159.24	192.18
April	866.64	.....	866.64	1,640.77	2,507.41	4,267.41	2,263.10	89.43	75.27	79.61
May	2,788.26	.....	2,788.26	1,882.93	4,671.19	4,244.29	4,203.16	279.63	78.26	110.14
June	765.86	31,742.39	32,508.25	2,478.73	34,986.98	30,885.37	31,227.65	3,239.83	359.97	159.53
July	608.75	.....	608.75	1,630.98	2,239.73	2,660.02	2,080.14	62.57	76.03	20.99
August	386.69	124.46	511.15	1,856.47	2,367.62	4,578.63	2,196.30	54.57	65.61	51.14
September	295.96	29,349.20	29,645.16	1,724.08	31,369.24	27.633.03	27,892.73	2,961.12	263.17	252.22
October	746.71	.....	746.71	1,383.42	2,130.13	2,795.82	996.88	25.56	12.71	1,094.98
November	147.37	.....	147.37	1,186.68	1,334.05	2,358.58	431.13	4.50	6.25	892.17
December	309.47	25,447.51	25,756.98	515.96	26,272.94	24,844.56	1,220.49	101.85	.....	24,950.60
Totals	$119,230.77	$111,277.11	$230,507.88	$17,533.48	$280,612.45	$266,938.42	$219.003.99	$22,898.25	$10,017.73	$28,696.28

* $3.80 received in April is cash returned to Water Works account on pay-roll.

TABLE II. FINANCIAL STATEMENT — LOWELL WATER WORKS, 1896.

OUTGO.

	Pay Rolls and Salaries.	Water Works Supplies.	Interest and Principal	Refunds and Vacancies.	General Expense Account.	Stable Department't.	Reservoir Department't.	Morris Engine Repairs.	COAL.			Pumping Well Water.	TOTALS.	
									P. S. 1.	P. S. 2.	P. S. 3.		1896.	1895.
January	$4,068.81	$1,623.35	$320.00	$91.52	$393.56	$175.88	$8.40	....	....	$ 196.74	....	$2,329.40	$ 9,207.66	$13,175.93
February	4,116.50	5,972.42	8 287.50	19.51	105.79	247.39	19.50	....	....	....	....	1,519.98	20,288.59	12,658.10
March	6,199.90	4,501.71	1,320.00	....	775.31	60.15	....	....	....	....	....	1,742.45	14,599.52	6,830.66
April	5,244.27	9,448.15	200.00	8.60	471.91	120.74	90.80	$275.57	....	2,789.11	$ 232.59	1,119.06	20,000.80	8,769.19
May	7,894.50	3,516.68	18,720.00	1,066.49	376.65	150.65	77.02	27.88	$528.43	....	....	1,196.08	33,554.38	34,160.17
June	5,684 08	3,341 24	1,400.00	111.59	273.93	180.37	15.80	63.63	2,534 08	953.48	1,835.90	1,359.14	17,753.24	14,025.08
July	4,927.04	2,879.75	10,440.00	194.30	294.18	111.64	....	6.15	....	....	....	1,521 00	20,374.06	22,718.71
August	5,676.56	2,102.56	2,967.50	238.07	407.99	124.69	....	27.19	....	....	1,723.57	1,431.04	14,699.17	15,755.57
September	4,725.10	844.94	600.00	22.94	181.70	21.50	4.94	....	....	....	....	1,248.59	7,649.71	10,342.99
October	5,483.96	1,843.62	11,440.00	188.30	171.32	192.41	....	728.59	....	....	....	1,005.49	21,053.69	10,107.97
November	4,625.24	1,220.79	19,880.00	33.30	210.52	100.38	....	....	....	....	....	996.46	27,066.69	36,379.77
December	3,486 19	1,660.74	1.520.00	....	61.58	80	....	....	....	....	....	633.77	7,363.08	22,689.93
Totals	$62,132.15	$38,955.95	$77,095.00	$1,974.62	$3,724.44	$1,486.60	$216.46	$1,129.01	$3,062.51	$3,939.33	$3,792.06	$16,102.46	$213,610.59	$207,614.07

TABLE III.

FINANCIAL STATEMENT—LOWELL WATER WORKS, 1896.

SUBDIVISION OF "OTHER THAN WATER CHARGES" FROM TABLE I.

	Meters Sold.	Expense Setting Meters.	Meter Repairs.	New Services.	Relaid Services.	Labor and Material.	Lime Charges.	Shut-off Tees.	Sewer Flushing.	Totals.	
										1896.	1895.
January.....	$ 647 00	$ 41 59	$ 19 07	$118 97	$ 36 65	$1.259 08	$129 44	$4 00	$ 8 00	$2,263 80	$ 593 44
February....	738 00	47 04	36 25	36 85	20 47	76 15	90	2 00	12 00	969 66	1,643 18
March.....	... ..	.....	.....	.....	.....	... ..	.....	.....	....	.....	.....
April.....	1,077 00	77 63	13 83	272 93	76 54	66 18	48 66	8 00	.....	1,640 77	2,475 70
May.	1,138 00	81 89	1 58	385 32	98 07	108 09	65 98	4 00	.....	1,882 93	1,733 33
June	1,632 00	158 10	1 58	327 80	209 64	104 73	38 88	2 00	4 00	2,478 73	1,672 46
July.....	911 50	98 82	13 83	264 84	135 32	76 95	51 72	66 00	12 00	1,630 98	1,698 38
August.....	1,145 50	135 19	.....	262 22	191 20	62 92	41 44	6 00	12 00	1,856 47	3,791 57
September...	691 50	73 33	1 80	302 56	122 07	430 28	84 54	14 00	4 00	1.724 08	1,588 32
October.....	660 50	74 17	12 33	287 90	91 19	192 01	49 32	8 00	8 00	1,383 42	2,424 44
November...	517 00	52 21	.....	311 78	211 33	25 16	55 20	2 00	12 00	1,186 68	1,909 50
December....	193 00	15 26	4 13	135 55	58 81	65 65	19 56	24 00	.....	515 96	794 52
Totals...	$9,351 00	$855 23	$104 40	$2,706 72	$1,251 29	$2,467 20	$585 64	$140 00	$72 00	$17,533 48	$20,324 84

TABLE IV.

FINANCIAL STATEMENT — LOWELL WATER WORKS, 1896.

SUBDIVISION OF "PAY ROLLS AND SALARIES" FROM TABLE II.

	Salaries President Superintendent.	Office and Inspector.	New Meter Work.	Meter Repairs.	Extension and Construc'n.	Pumping.		Maintenance.		Reservoir.	New Services.	Relaid Services.	Recharged Sundry Persons.	Totals.	
						Station 1.	Driven Wells.	Old System.	Wells.					1896.	1895.
January	.....	$ 698 31	$140 50	$140 50	$ 683 03	$287 31	$435 41	$1,277 29	$ 87 44	$ 67 03	$116 68	$ 31 50	$108 81	$4,068 31	$4,994 08
February	$ 366 67	698 00	77 25	130 00	159 95	319 08	383 60	1,240 67	363 95	81 20	34 75	40 63	220 75	4,116 50	2,960 63
March	183 33	558 40	122 75	129 75	84 16	334 61	284 79	4,198 03	191 02	45 92	15 00	.....	52 14	6,199 90	3,434 92
April	183 33	581 36	109 00	87 25	314 02	337 29	282 80	2,804 73	119 40	111 92	169 37	90 80	53 00	5,244 27	4,397 57
May	183 34	726 70	140 88	119 50	1,617 99	535 55	712 46	2,558 53	423 78	177 40	354 97	312 77	30 63	7,894 50	5,578 04
June	183 33	638 75	199 00	144 00	1,384 00	417 36	558 16	1,447 61	87 50	98 42	287 45	222 25	16 25	5,684 08	5,358 11
July	183 33	657 88	92 88	136 52	579 77	439 52	586 39	1,360 74	358 25	45 92	224 90	137 25	123 69	4.927 04	4,389 20
August	183 34	822 35	106 19	165 25	1,029 42	567 56	759 51	1,371 64	117 61	57 40	273 50	195 54	27 25	5,676 56	5,724 13
September	183 33	657 88	73 81	152 44	713 46	438 28	577 53	1,383 54	55 50	61 12	231 85	163 06	33 30	4,725 10	4,752 64
October	183 33	822 35	116 25	243 00	777 86	555 19	810 54	1,411 01	.....	71 30	279 63	190 00	23 50	5,483 96	4,908 12
November	183 34	665 88	117 25	160 25	681 40	447 94	655 92	1,225 09	15 00	45 92	241 75	172 50	13 00	4,625 24	4,619 40
December	633 33	499 41	103 75	129 75	111 62	332 23	502 35	796 04	65 50	55 94	154 67	91 75	9 75	3,486 19	2,612 24
Totals	$2,650 00	$8,027 27	$1,399 51	$1,738 21	$8,136 68	$5,012 02	$6,549 46	$21,074 92	$1,884 95	$919 49	$2,379 52	$1,648 05	$712 07	$62,132 15	$53,729 08

TABLE V.

FINANCIAL STATEMENT—LOWELL WATER WORKS, 1896.

SUBDIVISION "WATER WORKS SUPPLIES" FROM TABLE II.

Pumping Station, No. 1, supplies	$ 1,493.01
Pumping Station, No. 2, supplies	630.73
Pumping Station, No. 3, supplies	894.85
Iron pipe and specials	12,838.48
Hydrants	1,199.82
Gates, valves, and brass fittings	1,377.84
Lead pipe, pig lead and solder	1,666.86
Meters	9,700.54
Sidewalk and gate boxes	1,340.05
Conduit	3,344.93
Miscellaneous stock	3,896.16
Machinery and tools	572.68
Total	$38,955.95

Table VI.

FINANCIAL STATEMENT—LOWELL WATER WORKS, 1896.

DETAIL OF "PRINCIPAL AND INTEREST" FROM TABLE II.

Water Loan Bonds:			
Coupon No. 8, Nov., 1894, 5 @ 20		$ 100.00	
No. 9, May, 1895, 10 @ 20		200.00	
No. 10, Nov., 1895, 48 @ 20		960.00	
No. 11, May, 1896, 984 @ 20		19,680.00	
No. 12, Nov., 1896, 923 @ 26		18,460.00	
			$39,400.00
High Service Loan:			
Coupon, No. 29, 15 @ 100		$ 1,500.00	
No. 30, 15 @ 100		1,500.00	
			3,000.00
Notes:			
Lowell Inst. for Savings, 6 mos	$36,000	$1,320.00	
6 mos.	30,000		
1 year	70,000	2,800.00	
1 year	45,000	1,575.00	
			5,695.00
Commonwealth of Mass:			
1 year	$75,000	$3,000.00	
			3,000.00
			$51,095.00
Principal Payments:			
Engine Loan		$ 6,000	
Driven Wells Loan		10,000	
Driven Wells Loan		5,000	
Driven Wells Loan		5,000	
			26,000.00
			$77,095.00

Table VII.

FINANCIAL STATEMENT—LOWELL WATER WORKS, 1896.

DRIVEN WELLS ACCOUNT.

January 1, 1896. Balance			$59,312.58
Expended:	Chelmsford.	Boulevard.	
Pay rolls		$ 3,630.25	
Paid Water Works for labor	$ 742.00	303.50	
Telephone	15.60	37.11	
Supplies	.48	765.52	
Land	500.00		
Hydraulic Construction Co., balance contract	35,123.50		
B. F. Smith & Brother, on contract		14,116.60	
	$36,381.58	$18,852.98	55,234.56
Balance			$4,078.02

Table VIII.

FINANCIAL STATEMENT—LOWELL WATER WORKS, 1896.

MAINTENANCE AND CONSTRUCTION STATEMENT.

MAINTENANCE.

Paid for Labor:	
Office and Inspectors Salaries	$10,677.27
Pumping Station No. 1	5,012.02
Pumping Station No. 2 and No. 3	6,549.46
Meter Repairs	1,738.21
General Maintenance	24,607.92
Reservoir	919.49
Paid for Material:	
Output as per stock books	2,596 09
Interest	51,095.00
General Expense	3,724 44
Stable	1,486.60
Reservoir	216.46
Morris Engine Repairs	1,129.01
Tools	572.68
Supplies: Pumping Station No. 1	1,493.01
Pumping Station No. 2	630.73
Pumping Station No. 3	894.85
Coal: Pumping Station No. 1	3,062.57
Pumping Station No. 2	3,939.33
Pumping Station No. 3	3,792.06
Paid for Pumping Well Water	16,102.46
	$140,239.60

CONSTRUCTION.

Paid for Labor:	
Extension, construction and new services	$13,409.95
Paid for Material:	
Output as per stock books	12,740.71
Principal payments	26,000.00
	$52,150.66

SUPERINTENDENT'S REPORT.

LOWELL, MASS., Jan. 1, 1897.

TO THE LOWELL WATER BOARD:

Gentlemen: It gives me great pleasure to present to you the annual report of the Superintendent of Water Works for the year ending December 31, 1896.

SOURCE OF SUPPLY.

On February 22d last the 30-inch sluice gate on the river intake pipe controlling the direct feed from the Merrimack river, was closed and has not been opened since. This fortunate state of affairs was made possible by the completion of the Boulevard well plant.

The department has now at its service 380 wells, as follows: At No. 2 Station, off Plain street, 51 6-inch, 21 4-inch, 2 3-inch and 17 2-inch wells; at No. 3 Station, Chelmsford, 120 2-inch wells, and at No. 4 Station, Boulevard, 169 2½-inch wells.

WELLS AT NO. 2 STATION.

It is now over three years (September, 1893,) since the wells located at what is now known as No. 2 Station were first pumped, and the yield today is, to say the least, as satisfactory both in quality and quantity as at first.

Owing to the large supply of water derived from the Boulevard wells, it was found that the constant running of one

plant could be dispensed with, and as Smith Bros., the contractors for the Boulevard plant, were required by their contract to run every day for a year, it became necessary to shut down one of the other plants; accordingly No. 2 Station, because of the greater expense of operating due to non-condensing pumps, extra lift, etc., was stopped from June 1 to December 1, except for a short run occasionally to turn over the machinery and make sure everything was in order in case of an emergency.

At this plant the suction pipes are laid on the surface, and, when not pumping, the ground water rises and flows into them. These conditions, together with the advent of severe cold weather, made it necessary to resume pumping in order to avoid freezing. This was done December 1, and the running of No. 3 Station discontinued. In 1895 two lines of suction pipe at No. 2 Station were lowered eight feet, and it was intended to complete the work of lowering the whole plant the past year, but the brook was too high and nothing was done. It is hoped, however, that before next winter this improvement may be accomplished. Three breaks in the suction line were repaired during the year by the use of sleeves and lead joints, as follows: 1 20-inch, 1 12-inch and 1 6-inch; these breaks were undoubtedly caused by the swelling of the ground after heavy rains and its alternate shrinkage in drying. Two men are now employed cleaning these wells, which is done by pumping and tripping every well individually. About one-half of them have been treated this way already with good results.

WELLS AT NO. 3 STATION.

The control of No. 3 Station, formerly owned and operated by the Hydraulic Construction Company of New York City, was assumed by the department April 24. Since then the

working of this plant has been almost constant until December 1, when it was stopped to allow the running of No. 2 Station. On December 26 it was started again for a few days in order to meet the extra consumption caused by a spell of severe cold weather. The pumps and suction at this station are placed eight feet below the surface so that there is no danger from freezing when not pumping.

The quality of the water from this plant is good with the exception of thirty wells on the A line, which were found to contain iron, and their use discontinued for the time being. In case of necessity, however, it would be far preferable to resume their use than to return to river water; in fact, the amount of iron contained in this water would not be perceptible when mixed with the rest of the supply. The water from these wells and also the wells at No. 2 Station would give much greater satisfaction if, instead of pumping the water into the distributing mains, it could be delivered directly into the reservoir or at some point beyond where the distribution begins. At present at No. 3 Station the water is first pumped through five thousand feet of 20-inch pipe to and connecting with the 30-inch pipe leading from the pumps at No. 2 Station. At this point the water from both plants coming together is forced through thirteen hundred feet of 30-inch pipe to Plain street where the 30-inch pipe branches off into 24 and 20-inch pipes, both of which further along lead into 16 and 12-inch mains, and finally through the smaller pipes of the system, all of which are inadequate for the free flowage of such a large volume of water as both of these plants can furnish when running together, the result being an increase of ten or twelve pounds back pressure on the pumps due to friction caused by forcing such a large amount of water through too small an area. Besides the injury to the pumping machinery ensuing from being overworked; in this manner and

the excessive use of coal caused thereby, probably the principal evil arising from these conditions occurs when one station is running and it becomes necessary to run them both. Then the pressure on the mains is so increased that the mud and sediment which has accumulated in the pipes is set in motion and all the water takers in that section of the city justifiably complain of the roily condition of the water. This same trouble frequently occurs in various parts of the city when the pressure becomes variable from excessive consumption. It sometimes happens, particularly in the central portion of the city, that the comparatively greater use of water in the daytime over the night causes a fluctuation in the flow of the water between the reservoir and the supply from the wells, thereby disturbing the sediment in the pipes, making the water unfit for domestic use.

Then there is the air that is forced into the mains from the wells; if the water was discharged into the reservoir, the air would naturally escape instead of being confined in the pipes where it becomes foul, giving out a very disagreeable odor.

In view of the foregoing facts, it is hoped that your honorable board will take decisive steps looking to a remedy for these troubles as soon as possible.

BOULEVARD WELLS.

This plant being as yet in the hands of the contractors, it is sufficient to say that so far the quality of the water obtained is good and that the quantity has exceeded the expectations of everybody concerned; also, that since these wells started they have furnished their share of the water needed and to all appearances are capable of furnishing still more if required.

Judging from all the facts and data obtainable, the department can without doubt depend upon a minimum supply of eight million gallons from the wells now in use at its command.

Since the 22d of February last all the water used and "wasted" has been taken from the three well plants save what water filtered through the ground into the filter gallery, and the surface water that found its way into the conduit by percolation. Previous to that date, in addition to the well water pumped, 80,857,600 gallons of water was drawn from the river, most of which passed through the filter inlet. The total pumpage of well water for the year was 2,346,925,894 gallons.

FILTER GALLERY.

The 24-inch delivery pipe from Boulevard wells was connected with the filter gallery February 1. This work required an excavation to a depth of fifteen feet and the removal of the west end of the gallery wall, where the pipe enters and projects about three feet into the gallery. This wall was afterwards rebuilt in a substantial manner. At the end of the gallery where the pipe enters, numerous springs were found yielding water of a quality not desirable as a supply in connection with the Boulevard well water. To overcome that difficulty and get rid of this imperfectly filtered water, a bed of concrete was laid one foot thick, beginning at the westerly end and tapering down to top of brace stone, a distance of one hundred feet. Where the 24-inch pipe discharges, a space covering ten feet was paved with Belgium blocks. Two centrifugal pumps, 6-inch and 4-inch, were run constantly twenty-four hours per day while this work was being done in order to keep the water down in the gallery.

Anticipating that the filter inlet would not be needed

much, if any, in the future, a sixteen-inch gate was set in the Inlet House on the 30-inch pipe connecting with the gallery. Since February 22 this gate has been opened but twice and then only to draw off the water on the filter bed when blowing out the conduit. An inspection of the gallery later in the month of October showed this gate to be tight, and also the end wall of the gallery and the concrete appeared to be in good condition, the latter being hard and well set. At this time the gallery walls were washed down and the bottom leveled and cleaned as well as possible.

BREAK IN THE CONDUIT, ETC.

Your honorable board are already familiar with the plan and general condition of the conduit and with the break in the conduit last March and the work of reconstructing the same; you became thoroughly posted as to its nature and extent by personal observation at the time, yet a description of the present condition of the conduit and tunnel embodying an account of the break, giving details, etc., will not be out of place.

On February 28 the water from the Boulevard wells was pumped through the conduit for the first time. On March 1 and 2 as the result of heavy rains the Merrimack River became swollen and overspread its banks, continuing to rise until 3 a.m., March 3, when it attained high water mark, 12 ft. 9 in. above Pawtucket dam. On Monday, March 2, at 4 o'clock a.m., the then recently completed easterly wall of the pump pit at the Boulevard Pumping Station caved in, flooding the engine room and thereby stopping the pumps from further service until the river receded. After this accident it was considered best, as a precaution in case of damage to the filter gallery by the freshet to close the gallery gate in the inlet

chamber, shutting off the water from the filter gallery and Boulevard wells. On March 3, the blow-off at the West Sixth Street Pumping Station was opened so as to drain the pump wells and the conduit for the purpose of cleaning them, when it was found that the amount being drained was more than the normal capacity of the conduit; the water was also colored and contained sand and clay, thus indicating one of two things, either that the gallery gates were leaking or that there was a break in the conduit line. An investigation was made at once, when it was discovered that between Gershom avenue and Riverside street, near New Moody street, at the location of an old blind shaft called Tunnel Shaft No. 1, that, where two days before there was a body of water (caused by recent rains) about half an acre in extent with a depth of several feet there was now a depression five feet deep, fifty feet long and thirty feet wide. This led to an immediate examination of the interior of the conduit and tunnel, revealing the fact that at a point where the tunnel was lined, just west of shaft No. 1, the perpendicular southerly side wall had fallen in for a distance of about sixty feet in the tunnel. The City Engineer's Report to the Water Commissioners January 1, 1873, describes this portion of the conduit as follows: "At the shafts and portions of the rock roof that were thought to be unsafe, brickwork was built eight inches thick; the side walls are perpendicular, four feet apart with a semi-circular arch. The space between the back of walls and sides of the tunnel was carefully filled with stone and grouted, and the space above the arch was filled with well rammed earth." Now the facts, as observed at the time of break, were that at that particular place the backing was carelessly filled, with no grouting, and as for the "space above the arch" that was found to be almost a void; furthermore, it was very evident that there would have been no break if the work was done as thoroughly as de-

scribed. The weather, when the break occurred, was extremely cold, and the consumption of water as a consequence was high, ranging about ten million gallons per day. The disabled condition of the conduit cut off the supply from the Boulevard wells, and the river, leaving the department to rely on No. 2 and No. 3 Stations, pumping 5,000,000 gallons per day, and the reserve in the reservoir for supplying the city. The amount of water in the reservoir available was about 15,000,000. In order to avoid a water famine, which these conditions made imminent, the water takers were, by notice in the public press, warned of the accident and requested not to waste the water. The police department were also called upon to assist in preventing waste and rendered valuable aid. But the chief thing was to place the conduit in condition for its work as soon as human effort could possibly do it. With that end in view, the work of excavating the shaft and cleaning out the debris that had fallen and washed into the conduit and obstructed the flow of water was begun immediately and prosecuted night and day.

The shaft was originally fifty-two feet long and twenty-five feet wide, the sides drawing in to a width of eight feet at the bottom, forty-two feet below the surface. As the break was west of the shaft, that end was excavated first. The timbering, which was very substantial, was done under the direction of F. W. Farnham of the City Engineer's office, and consisted of 8″ x 8″ spruce stretchers in frames every four feet, with 8″ x 6″ spruce for braces every eight feet, making eight foot bays; three-inch spruce was used for sheathing and lagging. A Carson excavating machine was hired from the Sewer Department, and put in position as soon as possible, proving advantageous in accelerating the work.

On March 11 the break was reached, and by the 12th all the obstruction to the flow of water was removed, and the

next day water from the Boulevard wells was allowed to flow through sufficiently to refill the reservoir.

Your honorable Board, after due consideration, having decided that instead of repairing the damaged part of the conduit it would be wiser to remove that entire section of brickwork in the shaft and contiguous on both sides, replacing the same by four foot cast iron pipe with a man-hole in the centre; accordingly the remainder of the shaft was excavated and timbered similar to the first section, and the old brick lining removed.

There being no great urgency, the greater part of this work was done in the daytime, while during the night sufficient water was allowed to pass through and not interfere with the day work.

Pending the arrival of the pipe, the silt which had been accumulating for years on the rough sides and floor of the tunnel, varying from 6 to 18 inches deep, was removed. The method adopted in doing this work was to wheel it to the shaft in wheelbarrows and then hoist it to the surface with the sewer machine. The fact of having the shaft open and located as it was, about midway in the tunnel with the advantage of having the sewer machine for hoisting, afforded unusual facilities for doing this very desirable piece of work speedily and economically. When the pipe arrived it was lowered in the cut on a large skid or run made of 8″ x 8″ spruce bolted firmly together and placed at an angle of thirty degrees with the surface; at the bottom the pipe was received on a truck specially designed for the purpose. It was at first thought that the pipe might be handled by the sewer machine, but as each pipe weighed about three and one-half tons, was twelve feet long and on account of the timbering would have to be lowered vertically, it was considered too hazardous. The machine, however, was very useful in assisting the handling

of the pipe by lifting it in place on the skids, holding a strain while descending, and loading on to the truck at the bottom of the cut, ready to wheel into line in the tunnel. The pipe was laid as near as possible to the old grade, made together with lead joints, and was 156 feet in length, including 48″ x 48″ x 48″ tee for manhole.

At each end of the pipe line brick bulkheads were constructed three feet thick from the bottom to the roof of the tunnel, also at the westerly entrance from the shaft another bulkhead of brick of the same thickness was built. Between these bulkheads, the space around the pipe and above it to the roof of the tunnel was thoroughly backfilled as was also the shaft. The manhole erected was of brick one foot thick, four feet in diameter at the bottom, three feet at the top and forty-five feet high with permanent iron steps, and cut stone cover similar to others used on the conduit. All the brickwork was laid in the best Portland cement, that used in the bottom being known as Alsen's Cement.

Two interior inspections have been made of this work since its completion, and everything was found to be in good condition.

SUPPLY CONDUIT — ITS GENERAL CONDITIONS, PLAN, ETC.

Engineer George E. Evans in his report to the Water Commissioners January 1, 1873, describes the supply conduit as follows: "In shape, a circle four feet three inches inside diameter and constructed of hydraulic brick masonry eight inches thick. The whole exterior of the conduit is covered with a coating of cement mortar to prevent the percolation of surface water into the conduit." An examination of that part of it extending from the inlet chamber through land formerly owned by Morse, Blood and Cummiskey, under the Mammoth

road and Third avenue, made during the past year, showed that under Third avenue the top was flattened for a distance of about 100 feet and otherwise in such a bad condition that it was liable to give trouble at any time; also that the surface water did percolate through the brickwork notwithstanding that it was supposed to be impervious. Relative to this, it is well to bear in mind that this section of the city is now being rapidly built up, and the sewer arrangements are not of the best; seventy-five houses have been erected within three hundred feet of the conduit during the last few years.

When the vacant land between the Mammoth road and Starbird street is lotted up the city should see to it that the strip fifty feet wide over the conduit, and now owned by the city, be laid out as a street, thereby making a continuous highway from the inlet chamber to the tunnel. Then if it becomes necessary to replace the brick conduit with cast iron pipe between those points it can be done at least more conveniently.

Regarding that part of the conduit from White street through the tunnel under New Moody street to the terminal chamber on Riverside street, owing to the erection of the new bridge across the river at Moody street, that locality is also being rapidly built upon, and however much it is to be regretted instead of owning a strip of land fifty feet wide over this part of the conduit, the city only has limited rights in a strip ten feet wide; consequently, the houses are built very close to the line of the conduit, in fact, two buildings are already erected directly over it, and to make the matter more serious, there is no sewerage for this section, and for some time dry wells will have to be used.

The course of your honorable Board in calling upon the City Solicitor to protect the city's interests in the premises by securing an injunction restraining further building over the line of the conduit is both right and timely. Buildings should

not be erected so as to interfere with the proper maintenance of the conduit. Nothing should be left undone to preserve intact this excellent waterway with its great advantages of grade and line, and which cost the city so much to build.

A careful inspection of the interior shows fewer leaks than in the part between the inlet chamber and the tunnel, and the leaks found are confined to what is known as the sand tunnel, which is 375 feet long and is built of the regular section four feet, three inches inside diameter. The brick masonry in the rock tunnel is in good condition, except at one point, where a section of the perpendicular wall bulges in slightly, caused by water probably finding its way through seams in the rock to the back of the brickwork, and exerting a pressure thereon.

The importance of a system of sewerage for that section, to be built as soon as possible, cannot be too strongly urged, if the water in its passage through the conduit is to be preserved from contamination. Furthermore, all sewerage pipes laid for this section should be exclusively of iron with lead joints.

The following is a fair estimate of leakage into the gallery and conduit, pumping 4,000,000 gallons at West Sixth Street Station and 3,500,000 gallons at the Boulevard Station:

Eighty-three and one-third per cent. of total pumpage West Sixth Street Station obtained from wells.

Fourteen and one-third per cent. of total pumpage West Sixth Street Station obtained from filter gallery.

Two and one-third per cent. of total pumpage West Sixth Street Station from leaks in conduit.

PUMPING STATIONS AND PUMPING MACHINERY.

At Pumping Station No. 1, West Sixth street, the Morris Engine, which after being rebuilt by the Wheelock Engine

Company of Worcester in 1895 and run 203 days, continued to do the pumping last year in a satisfactory manner until February 21, when, while running as usual, the jacket-head of the low pressure steam cylinder exploded, throwing parts of it in various directions about the engine room, one piece striking Engineer Quinn, but fortunately not inflicting serious injury.

The different parts collected together upon examination showed beyond a doubt that the explosion was due to a defective casting. A new head of extra strength was made by the Wheelock Engine Company, and the engine was started again on March 27, when after running apparently as well as ever for about fifteen minutes the crank pin snapped off. Again the services of the Wheelock Engine Company were called into use, and the engine thoroughly overhauled. No cause was discovered for the accident to the crank pin unless it could be attributed to a blow received as the effect of the bursting of the cylinder head before mentioned. But whatever the cause, the result was found to be quite damaging to the working parts of the engine. The base of the high and low pressure cylinders were found to be cracked beyond repair. The two piston rods were badly bent, the stem of the throttle valve broken off, the straps, keys and gibs of the parallel motion strained out of shape and the piping, etc., also damaged. The task of restoring the engine to its former condition having been referred by your honorable board to a committee consisting of the President and Superintendent was undertaken without delay; a new crank pin was forged by the Nashua Forging Company of Nashua, new keys and gibs were made by the American Bolt Co., and the castings and other parts were furnished by the American Wheelock Engine Co. The piston rods were also sent to them for straightening. All of the heavy work, taking the machinery apart so as to re-

move the damaged parts, putting it together again and getting the broken pin out of the crank arm was done by the department help. Considerable of the mechanical work such as turning and fitting the new crank pin, finishing and fitting the new keys, gibs, etc., was done in the department shop under the supervision of Mr. McClure of the American Wheelock Engine Co. After completing the repairs the engine was started once more August 22 and run for three days.

Following the accident to the Morris engine, the Low Duty Worthington Pump was run for a short time, but owing to the superior economy of the High Duty Worthington, it was used to do most of the pumping for the year; which although run at only about one-half speed did its work very efficiently.

The old flanged steam line which was originally put in for the Morris engine over 25 years ago, and later used for the Low Duty Worthington Pump, leaked so badly that, acting upon your instructions, it was replaced by a new pipe with thread joints. An additional valve was set in the high duty steam line so that now any one of the three pumps can be operated by either set of boilers. Upon the recommendation of the Inspector of the Hartford Boiler Insurance and Inspection Co., a kerosene oil feeder was attached to the feed pipe of the boilers. Under the efficient management of Engineer Bartlett everything about the station is now in good order.

At Pumping Station No. 2, off Plain street, thanks to the capable and careful handling of Engineer Thomas McLaughlin everything there is in as good trim as possible. A new follower for the piston head on No. 1 pump was the only repairs necessary on any of the boilers or pumps during the year.

For the purpose of weighing coal for this Station and No. 3 Station a new Howe Platform Scales, 20 ft. long by 8 ft.

wide of 12,000 lbs. capacity was placed on the north side of the building. The excavation and brick foundation work for the same being done by the regular Water Works men.

Pumping Station No. 3, which was built by the Hydraulic Construction Co., has undergone considerable improvement since coming into possession of the city. In the first place the boiler room was enlarged 10 ft. wide by 30 ft. long, giving much needed room for handling coal, besides increasing the stability of the building, which at best is none too strong to withstand the storms and wind to which it is at times exposed in that locality. The boiler room floor was paved with brick and the floor of the pump pit was also improved by the application of about two inches more of concrete, making it drier and more comfortable to walk upon. New stairs were built from the pump pit to the office floor, and the interior of the office furnished and painted. Another important improvement was the providing of increased storage for coal. Last winter when the Hydraulic Co. were using over 150 tons of coal per month, not having place to store only 200 tons they were obliged several times to have more hauled, which, owing to the well nigh impassible condition of the roads in that section from snow drifts, etc., cost them a dollar a ton extra. Profiting by their experience in this matter, and having several thousand feet of lumber left over from the conduit break in stock, it was thought best to demolish the small bin built by the Hydraulic Construction Co., and replace it by one large enough to store sufficient coal to last through the winter. Accordingly, a new coal bin capable of holding 1,000 tons was erected. Part of the lumber before mentioned was used in its construction and proved admirably suited for the purpose, the 4-foot pieces of 3″ plank being utilized for the flooring, the long 3″ plank for the sides and the 8″ x 8″ x 6″ timbers came in well for the floor beams and posts. The sides are well sup-

ported, partly by an earth embankment and partly by 3″ plank braces notched into the floor timbers and upright posts. The whole structure is substantially built and ought to last for years.

The roads approaching the Station have been widened, graded and otherwise improved during the year. Considerable grading and filling was done in the rear of the Station, and a large well made of 3″ plank with a concrete bottom was built, into which all the water from the drip pipes, waste pipes and blow-off pipes is collected and thence conducted through a 12″ earthen pipe beyond the main pipes to a ditch leading into the main channel of the brook.

A new 6″ x 4″ x 6″ Worthington boiler feed pump was set in the boiler room taking the place of one too small for the work.

Last September in the water ends of No. 1 pump a crack was discovered, extending vertically from top to bottom between the cylinders, permitting leakage from one chamber to the other, and destroying somewhat the efficiency of the pump. It was repaired by bolting pieces of angle iron on each side and rusting together making a tight joint.

A Locke damper was also purchased for and set up at this Station, effecting a material saving in coal.

RESERVOIR.

As anticipated, during the summer the action of light and heat on the water in the open reservoir developed a growth known as Alga, which gave to the water a very obnoxious odor and taste. This same trouble occurs wherever the ground water is pumped into an open reservoir, and the usual remedy is to build a new covered reservoir or to cover the old one when practicable. But this department was fortu-

nate in being able to overcome this difficulty in a much less expensive way, which was simply done by opening a gate between the influx and efflux chambers at the gate house, and thereby allowing the water to flow into the distributing main as pumped without going into the reservoir. After that was done very little complaint was heard regarding the odor or taste of the water. In fact, changing the course of the water at the reservoir gate house, preventing as it did the circulation of fresh water through the reservoir had the effect of checking the growth of Alga to some extent.

During the months of July and August the amount of water in the reservoir was gradually lowered until August 14, when it reached 12 ft. 4 in., the lowest it had been since it was rebuilt in 1885. The object of thus lowering the reservoir was partly to notice what effect it might have on the growth of Alga, and also to observe the condition of the paving on the slopes and the stone masonry of the gate house. Three kinds of Algæ were found, and samples taken and placed in bottles at the City Engineer's office.

As to the condition of the paving of the slopes, that relaid in 1885 was as good as when laid, but the old paving didn't look so well; quite a large space exists between some of the courses, and in one place a marked depression can be seen in the face of the slope by sighting. Still there didn't seem to be any liability of it sliding in.

The stone masonry supporting the gate house is not in good condition, a number of the stones have fallen out and the water leaks through the walls. Next summer these walls should be replaced and repointed.

Professor Sedgewick of the Institute of Technology and State Biologist visited the reservoir at the time of the trouble about Algæ, and he expressed himself as satisfied that nothing was growing there that would affect the purity of the water.

He also took occasion to speak very complimentary of the condition of the reservoir and grounds, comparing them favorably with any he had ever seen.

The fence around the reservoir received two coats of paint during the year, the gate house also received a much needed painting. The keeper's house coming in for its share of attention, several rooms being papered, painted and white-washed, and the roof shingled.

HIGH SERVICE RESERVOIR.

The fence around this reservoir was also painted, and, judging from the facility with which the wood absorbed the paint, it was some years since it was painted before.

Several of the large stones which compose the bank wall around the reservoir lot were out of line, probably caused by the heaving of the earth. They were moved back into position and the fence which rested on them straightened.

DISTRIBUTION.

During the year 19,420 feet of main pipe was laid on the high and low service, of this 1205 feet was replacing smaller pipe on Merrimack, Moody, Pawtucket and Gates streets. The total number of feet of main pipe laid to January 1, 1897, is 623,431.8 ft. or 118 7-10 miles.

The most important piece of pipe laying during the year was the continuation of the 12-inch main on Merrimack street to and through Pawtucket street to Moody street, thence across the new Moody street bridge to Colonial avenue.

GATES.

To control the 12-inch pipe on Moody street bridge, 2 12-inch gates were set, one on Moody street to Pawtucket street

and another on Moody street to Colonial avenue. Fifty-three gates were set during the year.

HYDRANTS.

In addition to the 2 8-inch hydrants set on Jackson street last year at the request of the Hamilton Co., two more 8-inch hydrants were set this year on Middlesex street, convenient to be used in case of fire in their large storehouse. In all 36 additional hydrants were set during the year, 10 flush hydrants were replaced by post hydrants, 50 hydrants were repaired and 32 flush hydrant boxes were renewed.

FIRE SERVICES.

Fire services were laid during the year as follows:

Otis Allen & Son, for mill, Willie street, 6-inch pipe.
White Bros., for mill, Perry street, 6-inch pipe.
Haworth & Watson, for mill, Tanner street, 6-inch pipe.
P. J. Riley & Co., storehouse, Tanner street, 6-inch pipe.
F. G. Mitchell & Co. (Bon Marche store), Merrimack st., 6-inch pipe.
James A. Thompson, for hydrants, Congress street, 4-inch pipe.

SERVICES.

During the year 332 new services were laid and 212 old services changed for lead or larger iron pipe.

A special effort was made during the year to cut off at the main all discontinued services not likely to be used again. As a result 106 were cut off, some of them not having been used for years.

NEW SERVICES.

125 5-8-inch Lead Pipe	4,266 feet
196 3-4-inch Lead Pipe	7,110 "
6 1-inch Lead Pipe	129 "
2 3-4-inch Iron Lead Lined Iron Pipe .	179 "

1	1-inch Iron Lead Lined Iron Pipe . .	150 feet.
2	2-inch Iron Lead Lined Iron Pipe . .	93 "
1	1 1-2-inch Iron Pipe	164 "
333	Total laid in 1896	12,091 "
	Amount previously laid	374,811 "
	Total now laid	386,902 "
	Total services laid	10,544 "
	Total cut off at main	675 "
	Total reconnected	44 "
	Total now in use	9,913 "

SERVICES CHANGED.

No.	Kind.	CHANGED TO							
		Lead ⅝-in.	Lead ¾-in.	Lead 1-in.	Lead Iron	Lined Pipe ¾-in.	Iron 4-in.	Iron 1-in.	Total ft.
59	¾-in. iron.....	1,864	....	....	....	....	....	....	1,864
128	¾-in. iron.....	....	3,649	....	....	....	....	....	3,649
16	¾-in. iron.....	....	....	523	....	....	....	....	523
3	1-in. iron.....	....	69	....	....	....	..	....	69
1	1½-in. iron....	....	....	19	....	....	....	....	19
1	1-in. iron.....	....	....	27	....	....	....	....	27
1	⅝-in. lead.....	....	22	....	....	....	....	....	22
1	¾-in. iron.. ..	....	....	....	....	89	....	....	89
1	1½-in. iron.....	....	....	....	....	....	87	....	87
1	¾-in. iron.....	....	....	....	....	....	....	94	94
212	Total.	1,864	3,740	569	....	89	87	94	6,443

METERS.

There were 622 meters set the past year against 350 the previous year, an increase of 272. It might be interesting to note in this connection that the revenue of the department also shows a comparatively large increase over the previous

year, while the difference in consumption of water between the last two years is very much less than usual. Number of meters worn out and condemned, 64, of this number 60 were replaced with new meters, 37 meters were discontinued of these some belong to contractors and are only temporarily out of use. Thirty-eight meters were frozen and burst, a large proportion of which were repaired and set again. The total number of meters repaired is 615.

METERS RUNNING JANUARY 1, 1897.

Size.	⅝-in.	¾-in.	1-in.	1½-in.	2-in.	3-in.	4-in.	6-in.	Total.
Desper.....	101	41	10	....	....	....	....	....	152
Crown.....	1,378	1,323	249	8	12	2	5	2	2,979
Worthington.	237	27	52	67	32	8	3	....	426
Duplex.....	7	12	7	....	....	....	....	....	26
Ball & Fitts..	2	....	....	....	....	....	....	....	2
Fitts Rotary..	1	1	....	....	....	....	....	....	2
Frost..	10	6	2	....	....	....	....	....	18
Thomson	8	19	3	....	....	....	....	....	30
Gem.....	....	....	....	....	5	....	2	1	8
Metropolitan.	....	2	....	....	....	....	....	....	2
Trident.....	25	8	1	....	...	....	....	....	34
Nash.....	5	13	....	....	....	....	. ..	....	18
Lambert.....	3	4	....	....	....	....	....	....	7
Niagara.....	....	1	....	....	...	....	....	....	1
Hersey.....	21	26	3	....	....	....	....	....	50
Empire.....	....	3	....	....	....	....	....	....	3
Westingh'se..	....	1	....	....	....	....	....	....	1
Total.	1,798	1,487	327	75	49	10	10	3	3,759

PRIVATE METERS RUNNING JANUARY 1, 1896.

Size	⅜-in.	⅝-in.	¾-in.	1-in.	2-in.	Total.
Desper	....	1	3	1	....	5
Worthington	....	....	....	1	2	3
Crown	1	24	20	1	....	46
Duplex	....	1	....	....	....	1
Thomson	....	....	1	....	....	1
Hersey	....	1	....	....	....	1
Nash	....	4	1	....	....	5
Frost	....	2	1	....	....	3
Total	1	33	26	3	2	65

MISCELLANEOUS.

The blow-off pipes on the street mains were opened up five different times during the year. About two million gallons of water were used every time, and a great deal of rust, sediment, etc., carried off with the water, thereby cleaning the pipes and improving the water throughout the city.

Hydrants on "dead ends" were also "blown off" when occasion required for the purpose of clearing and improving the water.

The drinking fountain at the junction of Lakeview avenue and Aiken street was moved from the westerly side of Aiken street to the centre of the square, and the large combination fountain at the corner of Merrimack and Bridge streets was taken out and replaced by a small fountain for people similar to the one at Monument square.

About the usual number of leaks were reported during the year, all but three of them in service pipes; those three were small leaks in lead joints, none of them being of any importance.

CONCLUSION.

In concluding this report it gives me great pleasure to express to President Putnam and the members of the Water Board my heartfelt gratitude for the confidence you have imposed in me during the year, and for your cordial support at all times, and to the clerk of the Board, John W. Crawford, I also cheerfully acknowledge myself indebted for kind co-operation in the work of the department.

Respectfully submitted,

ROBERT J. THOMAS,
Superintendent.

LOW SERVICE.—WATER PIPES LAID IN 1896.

Streets.	Between What Streets.	Length in feet.						Total.
		4-in.	6-in.	8-in.	10-in.	12-in.	16 in.	20-in.	
Adams Ct.....	Southerly from Church.....		123						123 0
Albert.....	Westerly to Stevens.....		286						286.0
Andrews... ...	Extended southerly.....		121						121.0
Ardell.....	Easterly from Ina.....		138						138.0
Avon	North'ly and south'ly from 6th Ave		712						712 0
Beacon	Extended southerly.....		100						100.0
Belle Ave.....	Westerly from Stevens.....		148						148.0
Bellevue... ...	Southerly to Thayer.....			54					54.0
Billings..... .	Easterly from Barker Ave.....		148						148 0
Blossom	Extended westerly.....		67						67.0
Bourne	Extended northerly.....		162						162.0
Broadway.....	Extended westerly.....		68						68.0
Burgess.....	Easterly from Hastings.....		221						221.0
Burlington Ave	Extended southerly.....		48						48.0
Burnside	Fulton and Stanley.....	240							240 0
Burtt.....	Westford and Pine.....		828						828.0
C	Westerly from Puffer.....		144						144.0
Canada.....	Easterly from Tanners.....		26						26.0
Carlton.....	Northerly to Middlesex...		55						55.0
Charles Ave....	Extended easterly.....		48						48.0
Crawford.....	Southerly from 5th Ave.....		129						129.0
Crescent.....	Northerly from Blodgett.....		180						180.0
Crowley	Extended southerly.....		54						54.0
Dartmouth	Extended northerly.....			72					72.0
Ellsworth	Westerly from Gorham.....		286						286.0
Fernald	Southerly from Westford.....		276						276 0
Fifth Ave.....	Easterly from Avon.....		215						215 0
Fort Hill Ave,.	Southerly from Sherman.....		355						355.0
Fort Hill Ave..	Northerly to Oak.....		172						172.0
Fulton	Mt. Vernon and Willie.....			485					485.0
	Carried forward.....	240	4110	611					5961.0

LOW SERVICE.—WATER PIPES LAID IN 1896.—*Continued.*

STREETS.	BETWEEN WHAT STREETS.	Length in feet.							Total.
		4-in.	6-in.	8-in.	10-in.	12-in.	16-in.	20-in.	
	Brought forward.....	240	4110	611	1153				5961.0
Gardner Ave...	Westerly from Moody.....		231						231 0
Gates.....	Southerly from Sheldon.....		100						100.0
Gates.....	Southerly from Westford (relaid)..		615						615.0
Holmes Ave....	Easterly from Mammoth Road.....		220						220.0
Houghton	Extended northerly.....		52						52.0
Ina	Northerly from Third Ave.....		158						158.0
Lawrence	Southerly to town line.....		518						518.0
Leverett.....	Extended southerly.....	65							65.0
Lexington Ave.	Southerly from Varnum Ave... ...		414						414.0
Ludlam	Extended easterly.....		144						144.0
Maple.....	Westerly towards West.....		200						200.0
Merrimack	Northerly to Pawtucket (relaid)...					54			54.0
Merrimack.....	Fire service F. G. Mitchell.....		28						28.0
Middlesex Park	Extended northerly.....		260						260.0
Moody.....	Pawtucket and Colonial Ave.....					741			741.0
Moody.....	Riverside and Fourth Ave.....				1153				1153.0
Mt. Hope.....	Fourth and Fifth Ave.....		356						356.0
Nelson	Southerly from Middlesex.....		237						237.0
New Ave.....	Southerly from Ludlam.....	133							133.0
Oak Ave.....	Southerly from Arch..... .		89						89.0
Oakland	Extended southerly.....		48						48.0
Orleans.....	Northerly and easterly from Fred.		627						627.0
Pawtucket.....	Moody and Merrimack (relaid)....					229			229.0
Perrin.....	Extended westerly.....		356						356.0
Perry.....	Extended southerly.....			197					197.0
Perry	Fire service White Bros.....		17						17.0
Phœbe Ave.....	Easterly from Sarah Ave.....		174						174.0
Poplar.....	Westerly from School.....		394						394.0
Reed Ave.....	Westerly from Orleans.....		120						120.0
Sanders Ave....	Southerly from Pine.....		644						644.0
Sarah Ave.....	Northerly from Riverside.....		183						183.0
	Carried forward.....	438	11,295	808	1153	1024			14,718 0

LOW SERVICE.—WATER PIPES LAID IN 1896.—*Continued.*

STREETS.	BETWEEN WHAT STREETS.	Length in feet.							Total.
		4-in.	6-in.	8-in.	10-in.	12-in.	16-in.	20-in.	
	Brought forward.....	438	11,295	808	1153	1024			14,718.0
Seventeenth...	Easterly from Humphrey.....		634						634.0
Shaw.....	Westerly to Warwick.....		107						107.0
Sidney.....	Southerly from Moore.....		547						547.0
Sixth Ave.....	Easterly from Mt. Hope.....		340						340.0
Stevens.....	Extended northerly.....			430					430.0
Tanners.....	Fire service to P. J. Riley's.....		122						122.0
Tanners.....	Fire service to Haworth & Watson's		46						46.0
Thayer.....	Easterly to Bellevue.....		162						162.0
Thorndike .. .	Fire service to County jail.....	89							89.0
Totman	Extended northerly.....		294						294.0
Warwick.....	Northerly to Harding.....		458						458.0
Waterville.....	Southeast'ly from Woodward Ave.		248						248.0
West Forrest...	Extended westerly.....		135						135.0
Willie	Fire service to Allen's mill.....		42						42.0
Hydrants.....	....		177	27					204.0
	Laid in 1896.....	527	14,607	1265	1153	1024			18,576.0
	Less taken out Pawtucket, Merrimack, Moody and Gate Sts.....								1205.0
	Total								17,371.0

HIGH SERVICE.—WATER PIPES LAID IN 1896.

Streets.	Between What Streets.	Length in feet.							Total.
		4-in.	6-in.	8-in.	10-in.	12-in.	16-in.	20-in.	
Beacon	Extended northerly		78						78.0
Butman Road	Northerly from Hovey		206						206.0
Hazel	Easterly from Rogers		171						171.0
Holyrood Ave.	Extended northerly		49						49.0
Third	Easterly from Beacon		340						340.0
	Laid in 1896		844						844.0
	High service laid previous to 1896								34,371.0
	Total high service to Jan. 1, 1897								35,215.0

Brought forward	17,371.0
Low service laid previous to 1896	570,845.8
Total low service to Jan. 1, 1897	588,216.8
Total high service to Jan. 1, 1897	35,215.0
Total high and low service to Jan. 1, 1897	623,431.8

Total in miles, 118.07.

LOW SERVICE.—LIST OF STOP GATES SET DURING THE YEAR 1896.

STREETS.	LOCATION.	4-in.	6-in.	8-in.	10-in.	12-in.		
Adams Ct	1 ft. south of south line Church Street, 10½ ft. east of west line Adams Court		1					
Albert	12 ft. north of south line Albert, on east line Stevens Street		1					
Avon	12 ft. north of south line Avon Street, on east line Fifth Ave		1					
Barclay	14 ft. east of west side Barclay, on north line Liberty Street		1					
Belle Ave	12 ft. north of south line Belle Ave., on west line Stevens Street		1					
Burgess	12 ft. south of north line Burgess, on east line Hastings Street		1					
Burtt	12 ft. east of west line Burtt Street, on south line of Westford Street		1					
Burtt	12 ft. east of west line Burtt Street, 1½ ft. south of north line Pine Street		1					
Burnside	6 ft. north of south line Burnside Street, on east line Stanley Street	1						
Cabot	20 ft. west of east line Cabot, and 11 ft. south of west line Hall Street. (On hydrant.)		1					
Canada	13 ft. north of south line Canada Street, on east line Tanners Street		1					
Carlton	13½ ft. east of west line Carlton Street, on south line Middlesex Street		1					
Crawford	12 ft. north of south line Crawford Street, on east line Fifth Ave		1					
Ellsworth	12 ft. north of south line Ellsworth Street, and on the west line Gorham Street		1					
Fernald	10 ft. west of east line Fernald Street, and on the south line Westford Street		1					
Fort Hill Ave	12 ft. west of east line Fort Hill Ave., on south line Sherman Street		1					
Fort Hill Ave	12 ft. west of east line Fort Hill Ave., on south line Oak Street		1					
Fulton	23 ft. south of north line Fulton Street, on east line Mt. Vernon Street			1				
Fulton	10½ ft. north of south line Fulton Street, on west line Willie Street			1				
Gardner Ave	11 ft. north of south line Gardner Ave., on west line Moody Street		1					
Gates	13 ft. west of east line Gates Street, on south line Westford Street. (Replaced.)		1					
Holmes	12 ft. south of north line Holmes Ave, on east line Mammoth Road		1					
Ina	12 ft. west of east line Ina Street, on north line Third Ave.		1					

LOW SERVICE.— LIST OF STOP GATES SET DURING THE YEAR 1896.— *Continued.*

STREETS	LOCATION.	4-in.	6-in.	8-in.	10-in.	12-in.
Lexington Ave.	12 ft. west of east line Lexington Ave., on south line Riverside Street		1			
Merrimack	14½ ft. west of east line Merrimack Street, south line Pawtucket Street. (Replaced.)					1
Merrimack	23 ft. south of north line Merrimack Street, on east line Palmer Street. (Mitchell's fire service.)		1			
Middlesex	22½ ft. east of east line Eliot Street, on hydrant connection		1			
Middlesex	3½ ft. west of west line Marston Street, on hydrant connection		1			
Moody	13 ft. east of west line Moody Street, on north line Riverside Street				1	
Moody	16 ft. east of west line Moody Street, on south line Pawtucket Street. (Replaced.)		1			
Moody	14 ft. west of east line Moody Street, on north line Pawtucket Street					1
Moody	13 ft. east of west line Moody Street, on south line Colonial Ave.					1
Moody	On blow-off in Sewer Manhole, north of New Bridge		1			
Moody	13 ft. east of west line Moody Street, on south line Fourth Ave.				1	
Mt. Hope	16 ft. east of west line Mt. Hope Street, 2 ft. north of south line Fourth Ave.		1			
Nelson	12 ft. west of east line Nelson Street, on south line Middlesex Street		1			
New Ave	7 ft. west of east line New Ave., on south line Ludlam Street	1				
Pawtucket	18 ft. north of south line Pawtucket Street, 16½ ft. west of east line Merrimack Street			1		
Perry	7 ft. east of west line Perry, on fire service to White Bros.		1			
Poplar	9 ft. south of north line Poplar Street, and on the west line School Street		1			
Prescott	10 ft. west of east line Prescott Street, on hydrant connection		1			
Sanders Ave.	12 ft. east of west line Sanders Ave., on south line Pine Street		1			
Sarah Ave.	12 ft. west of east line Sarah Ave., on north line Riverside Street		1			
Seventeenth	12 ft. north of south line Seventeenth Street, on east line Humphrey		1			
Sidney	12 ft. east of west line Sidney Street, 25 ft. north of south line Moore Street		1			
Sixth Ave	13 ft. west of east line Sixth Ave., 2 ft. north of north line Mt. Hope Street		1			

LOW SERVICE.— LIST OF STOP GATES SET DURING THE YEAR 1896.— *Continued.*

STREETS.	LOCATION.	4-in.	6-in.	8-in.	10-in.	12-in.	
Tanners	On fire service to Haworth & Watson's		1				
Tanners	On fire service to P. J. Riley's		1				
Thorndike	On fire service to County Jail, 8 ft. east of west line Thorndike Street	1					
Warwick	12 ft. west of east side Warwick Street, on north of Shaw		1				
Waterville	12 ft. south of north line Waterville, on east line Woodward Ave.		1				
Willie	67½ ft. north of north line Rock Street, on fire service to Allen's Mill		1				

LOW SERVICE.—LIST OF HYDRANTS SET DURING THE YEAR 1896.

STREETS.	LOCATION.
Avon	Southerly side, 2 ft. east of Sixth Avenue.
Avon	Southerly side, 6 ft. east of Fifth Avenue.
Belle Ave	Southerly side, 136 feet west of Stevens Street.
Beech	Easterly side, on terminus.
Bourne	Westerly side, between Moore and Otis Streets.
Blossom	Northerly side, on terminus.
Broadway	Northerly side, on terminus.
Burgess	Northerly side, 209 ft. east of Hastings Street.
Burtt	Westerly side, 300 ft. south of Westford Street.
Congress	In mill yard of Walter Coburn.
Crawford	Southerly side, 4½ ft. east of Fifth Avenue.
Edwards	Easterly side, on pipe terminus.
Ellsworth	Southerly side, 270 ft. west from Gorham Street.
Fort Hill Ave	Easterly side, 85 feet south of Aster Street.
Fulton	Southerly side, 188 feet west of Willie Street.
Gates	Easterly side, 124 ft. south of Westford Street.
Hadley	Easterly side, on pipe terminus.
Harvard	Easterly side, 305 feet south of Middlesex Street.
Lawrence	Easterly side, 5 ft. north of town line.
Lexington Ave	Easterly side, 377 ft. south of Varnum Avenue.
Maple	Southerly side, near West Street.
Middlesex	Southerly side, 23 ft. east of Elliott Street.
Middlesex	Southerly side, 3½ ft. west of Marston Street.
Mt. Hope	Westerly side, 68 ft. north of Fourth Avenue.
Moody	Westerly side, 27 feet south of Fourth Avenue.
Orleans	Southerly side, opposite Reed Avenue.
Perrin	Northerly side, on pipe terminus.
Perry	Easterly side, opposite White Bros.' new mill.
Poplar	Northerly side, 350 ft. west from School Street.
Prescott	Easterly side, changed and replaced old flush.
Riverside	Southerly side, 36 ft. east of Terminal Chamber.
Sanders Ave	Westerly side, 53 ft. south of a new street.
Sidney	Westerly side, 308 ft. south of Moore Street.
Stevens	Westerly side, 130 ft. south of Albert Street.

HIGH SERVICE — LIST OF STOP GATES SET DURING THE YEAR 1896.

STREETS.	LOCATION.	4-in.	6-in.	8-in.	10-in.	12-in.	16-in.	20-in.
Hazel	14 ft. north of south line Hazel, on east line of Rogers Street	..	1	..	..	..	..	..
Third	13 ft. south of north line Third Street, on east line Beacon Street	..	1	..	..	..	..	..

HIGH SERVICE — LIST OF HYDRANTS SET DURING THE YEAR 1896.

STREETS.	LOCATION.
Beacon	Westerly side, on High Service pipe terminus.
Third	Northerly side, 307 ft. east of Beacon Street.

STOCK ON HAND JAN. 1, 1897.

	4-in.	6-in.	8-in.	10-in.	12-in.	16-in.	20-in.	24-in.	30-in.
Lengths of Pipe	..	86	478	577	296	40	23	51	25
Sleeves	..	9	12	5	14	8	1	5	9
Caps	70	30	47	..	12	3	..	2	.
Plugs	10	10	6	3	..	..	..	..	..
Curves, ¼	4	5	10	2	9	..	..	..	..
Curves, ⅛	..	7	1	2	..	1	4	5	..
Curves, 1-16	..	..	10	..	..	3	6	1	3

	4 x 4	6 x 4	6 x 6	8 x 4	8 x 6	8 x 8	10 x 4	10 x 6	10 x 8	10 x 10	12 x 4	12 x 6	12 x 8	12 x 10	12 x 12	16 x 6	16 x 8	16 x 10	16 x 12	16 x 16	20 x 6	20 x 12	24 x 20
Threeways	2	5	6	4	11	..	..	3	7	3	..	3	6	3	16	2	4	5	4	1	1	1	..
Fourways	7	5	8	..	12	4	..	5	7	5	..	3	5	4	4	4	3	1	3	1	..	..	..
Reducers	..	4	..	..	5	..	3	11	4	..	2	2	8	6	..	..	..	4	2	..	..	..	3

2 lengths 24-inch flange pipe; 9 lengths 8-inch flange pipe. Flange Specials. — 8x6x4 threeways, 5; 10x8x4 threeways, 8; 8x8x4 threeway, 1; 12x12x20 threeway, 1; 6x6x4 threeway, 1; 20x20x12 threeways, 5; 16x12x12 threeway, 1; 20x16x12 threeway, 1; 8x6x6x4 fourway, 1; 2 4-inch, ⅛ turns; 1 8-inch, ⅛ turn; 2 8-inch, ¼ turns.

Cast Iron Pipe (short pieces.)—30-inch, 10 ft.; 24 inch, 40 ft.; 20 inch, 54 ft.; 16 inch, 88 ft.; 12 inch 6 ft.; 10 inch, 15 ft., 8 inch, 40 ft.; 6 inch 36 ft.; 4 inch, 40 ft. One 30-inch manhole, 1 30-inch clamp sleeve, 1 24-inch clamp sleeve, 3 6-inch offsets, 3 6-inch Smith gates, 3 8x6 Smith sleeves, 1 6x2 Smith sleeve, 4470 lbs. pig lead, 253 lbs. yarn. Hydrants.—Ludlow, 8; Chapman, 1; Michigan, 2; Lowry, 1; 1 Top for Chapman Hydrant; 2 barrels for Chapman Hydrant. Gates. — 4-inch, 7; 6-inch, 4; 8-inch, 10; 10-inch, 4; 12-inch, 3; 555 lbs. ⅝-inch lead pipe, 817 lbs. 1-inch lead pipe, 488 lbs. ¾-inch lead pipe, 107 lbs. 1½-inch lead pipe, 142 lbs. 2-inch lead pipe; 316 ft. 2-inch lead-lined iron pipe, 305 ft. 1½-inch lead-lined iron pipe, 126 ft. 1¼-inch lead-lined iron pipe, 360 ft. 1-inch lead-lined iron pipe, 552 ft. ¾-inch lead-lined iron pipe; 100 ft. 1½-inch iron pipe; 46 lead goosenecks. Corporation cocks, 1-inch, 20; ¾-inch, 281. Sidewalk cocks, 1-inch, 10; ¾-inch, 359. Cellar cocks, 1-inch, 9; ¾-inch, 524; 8 ¾-inch compression cocks; 893 ¾-inch thimbles for cocks; 463 ¾-inch solder unions for cocks; 323 ¾-inch screw tail unions for cocks, 212 ¾-inch corporation solder unions; 80 1-inch sidewalk cock unions; 23 1-inch corporation unions; 135 iron stop-cock boxes. Crown Meters, 1½-inch, 2, 1-inch, 8; ¾-inch, 26; ⅝-inch, 30; Nash meters, ¾-inch, 7; ⅝-inch, 11; Empire meters, ¾-inch, 1; Gem meters, 6-inch, 1; Hersey meters, ⅝-inch, 5; Lambert meters, ⅝-inch, 3; Trident meters, ¾-inch, 1; Worthington meters, 2-inch, 5; 1½-inch, 3; 1-inch, 1; ⅝-inch, 5; Frost meters, 1½-inch, 2; 19 tops for ¾-inch Crown meters; 26 Tops for ⅝-inch Crown meters; 9 tops for 1-inch Crown meters; 2 bottoms for ⅝-inch Trident meters; 20 tops and ratchets for Worthington meters; 15 clocks for Worthington meters; 18 brass pistons for Worthington meters; 9 2-inch Peet valves with waste; 9 1½-inch Chapman valves; 2 2½-inch steam valves; 1 ½-inch steam valve. Brass elbows, 1 inch 65; 1x¾-inch, 78; 1x½-inch, 12; ¾-inch, 61; ¾x½-inch, 40. Brass nipples, 1x¾-inch, 9. Iron Tee's, 2½x1½-inch, 1; 2x1½-inch, 3; 2-inch, 1; 1½x1-inch 1; 1½-inch, 7; 1¼x¾ inch, 2; 1-inch, 16; ¾-inch, 19. Iron Tee's lead-lined, 2x1½-inch, 1; 2x1¼-inch, 1; 2-inch, 4; 2x¾-inch, 13; 1¼x1-inch, 6; 1¼x¾-inch, 4; 1-inch, 10; 1x¾-inch, 10; ¾-inch, 9. Iron four-ways, 2x¾-inch, 6; 1½x1-inch, 5; 1-inch, 10. Iron Y's, 2x1½-inch, 8. Iron Y's. lead-lined, 2x1½-inch, 10. Iron plugs, 1-inch, 93; ¾-inch, 67. Iron elbows, 2½x2-inch, 2; 2-inch, 1; 2x¾ inch, 1; 1½-inch, 17; 1-inch, 70; 1x¾-inch, 104; 1x1½-inch, 71, ¾-inch, 10; ¾x½-inch, 60. Iron elbows, lead-lined, 1-inch, 8. Iron couplings, 2-inch, 193; 1¼x1-inch, 3; 1¼x¾-inch, 3; 1-inch, 175; 1x¾-inch, 44; 1x½-inch, 34, ¾-inch, 50; ¾x½-inch, 70. Iron unions, 2½-inch, 1; 2-inch, 6; 1½-inch, 10; 1-inch, 90; ¾-inch, 100; 1 ¼-inch bends; 1-inch, 16. Iron nipples, 2½-inch, 3; 1-inch, 110; ¾-inch, 85. Iron bushings, 1x½-inch, 170; 1x¾-inch, 35; 11 complete Post Hydrant spindles; 3 Independent outlet valves for Chapman hydrant; 30 hydrant tops; 16 brass hydrant nipples; 21 leather vales for flush hydrants; 42 brass hydrant spindles; 14 bushings for post hydrants; 12 caps for hydrant nozzles; 1 30-inch gate spindle; 4 discs for gates; 70 brass gate spindles; 191 rubber gaskets for gates and hydrants; 24 caps for gate spindles; 12 brass nuts for stuffing boxes; 5 hydrant caps; 11 spindle heads for post hydrants; 8 iron plates for gates; 1 box of ring packing for 6-inch gates; 7 wooden hydrant boxes; 39 iron gate boxes; 50 lbs. rubber for packing; 170 lbs. Rainbow packing; 2 boxes 1-inch square

flax packing; 1 box $\frac{5}{8}$-inch square flax packing; 20 lbs. Eureka packing; 12 lbs. ring packing; 350 lbs. fine solder; 975 lbs. wiping solder; 150 lbs. steel; 500 lbs. iron; 1 can of powder; 3 cans of paint; 9 diaphragms for Edson pump; 2 harness hooks; 15 lead paper weights; $\frac{1}{4}$ box toilet paper; 1 piston head for Deane pump; 4 lbs. brass checks; 25 lbs. tar paper; 10 lbs. tin and nails; 12 lbs. Dualin; 21 lbs. leather; 10 lbs. felt packing; 34 caulking hammer handles; 17 striking hammer handles; $\frac{1}{4}$ bbl. of salt; 5 picks; 3 pick handles; 2 adze; 5 shovels; 2 lead pots; 1 top for Edson pump; 1 Douglas pump; 2 bales cotton waste; 1 battery and bell; 7 lbs. insulated wire; 3 boxes of tacks; 1 can Columbia metal polish; 5 monkey wrenches; 1 large can enamel black; 5 20-lb. sledge hammers; 20 lbs. iron castings for wheelbarrows; 1 casting for fountain; 3 cords wood; 1 load of bricks; 150 old gate and hydrant covers; 3 lbs. black enamel.

Property and Tools at Shop, Hampshire Street.

1 8x10 plain slide valve engine; 1 10-ft. engine lathe; 1 7-ft. engine lathe; 1 6-ft. brass finishing lathe; 1 5-ft. speed lathe; 1 shaper; 1 upright drill; 1 emery wheel; 1 grindstone; 2 soldering furnaces; 1 large end chuck; 2 independent chucks; 3 drill chucks; 10 lathe dogs; 19 reamers; 12 twist drills; 12 flat drills; 10 flat chucking drills; 30 turning tools; 10 steel arbors, 3 reamers for Desper meters; 15 taps; 3 tap wrenches; 1 hand vise; 4 bench vises; 2 pipe vises; 6 Stillson wrenches; 6 S wrenches; 13 hydrant wrenches; 9 post hydrant wrenches; 6 gate wrenches; 1 set chainfalls; 1 large platform scales; 2 small platform scales; 1 A. P. Smith tapping machine; 1 6-inch Kennedy valve; 9 die stocks; 30 dies; 8 pipe cutters; 6 pairs pipe tongs; 4 flush hydrants; 14 ft. rubber hose; 11 monkey wrenches; 1 nail puller; 1 30-inch; 1 24-inch; 1 16-inch; 2 12-inch; 1 8-inch; 2 6-inch, clips; 6 clamps; 4 levels; 2 blasting batteries with wires; 2 paving hammers; 12 rattan brooms; 1 gas radiator; 4 pipe hangers for E. Merrimack street bridge; 720 lbs. old brass; 3 sand screens; 3 gravel screens; 1 shaft hanger; 3 set caulking tools; 1 3-inch flange valve; 7 striking hammers; 9 caulking hammers; 12 cold chisels; 1 Railroad jack; 1 set blocks and rope; 1 crosscut saw; 3 Edson marine pumps; 11 lengths suction hose; 16 pair rubber boots; 4 tapping machines and rubbers; 6 taps and drills; 3 tap wrenches; 1 set plumbers tools; 2 naptha furnaces; 2 tin tunnels; 1 dark lantern; 2 2-inch chisels; 1 hatchet; 3 brass hand pumps; 1 2-inch auger; 5 hand saws; 3 pieces steel for ratchet; 100 ft. block tin tubing; 50 ft. block tin rod; 5 screwdrivers; 8 files; 1 pinch bar; 2 dust pans; 4 oil cans; 1 large oil can; 2 hydrant reducers for hose; 1 Norton door check and spring; 1 machine for testing meters; 1 chain; 1 set of bits; 1 set of chisels; 3 pair pliers; 1 pair round-nosed pliers; 2 soldering irons; 1 belt punch; 1 set steel figures; 1 set brass stencils; 1 naptha can; 2 hack saws; 1 pair scissors; 1 pair snips; 1 saw set; 3 desks; 1 small book case; 5 lbs. iron washers; 120 lbs. bolts; 2 gate plans; 1 750-gallon tank for testing meters; 1 forge; 1 anvil; 1 set blacksmiths tools; 1 draw shave; 1 marlin spike; 2 pails; 1 naptha lamp; 2 small meter wrenches; 1 L. W. W. seal; 1 set of tools for sealing fire services; 2 tool bags; 1 step ladder; 1 clock; 1 map of water mains; 2 chairs; 2 floor brushes; 1 mirror; 1 copper boiler; $\frac{1}{2}$ can glue; 1 can for old waste; 1 lawn mower; 1 steel square; 1 piper's bench; 2 lead furnaces; 6 lengths $2\frac{1}{2}$-inch hose; 1 nozzle; 2 dutchmen; 10 lbs. iron wire.

Property at Superintendent's Office.

Two desks, three chairs, 1 set of drawers and book case, 1 letter press and stand, 1 hat rack, 1 Howard Electric Watch Clock, 1 gate plan, 2 diagrams, 1 picture, 15 framed notices.

Property and Tools at Tool House.

34 shovels, 25 picks, 28 pick handles, 37 mauls, 6 driving mauls, 3 lead pots, 4 set derrick falls, 5 chains, 11 striking hammers, 2 spoon shovels, 3 iron bars, 12 s. w. wrenches, 12 wrenches for hydrants and gates, 6 square pointed shovels, 16 hoes, 3 grub hoes, 1 scythe, 3 paving hammers, 2 hand saws, 2 caulking hammers, 2 claw hammers, 3 monkey wrenches, 3 iron rakes, 1 stone hammer, 5 ladles, 1 axe, 2 bucksaws, 2 lines, 1 screw jack, 1 sledge hammer, 7 crowbars, 5 wedges, 1 set caulking tools, 3 chisels, 3 cutters, 3 derricks, 12 wheelbarrows, 3 sawhorses, 1 sand sifter, 1 gravel sifter, 4 tool boxes, 2 sets iron falls, 1 portable forge, 75 ft. 1¾-inch rope, 4 paving mauls, 1 boat, 7 sling ropes, 10 tag ropes, 30 lanterns, 5 pails, ½ keg nails, 30 gallons oil, 12 lantern globes.

Property and Tools at Pumping Station No. 1.

11 wrenches for high duty Worthington, 11 wrenches low duty Worthington, 11 wrenches for Morris engine, 8 sets brass boxes for engine, 4 spare valves for Morris engine, 2 oil dishes, 1 set oil cans, 1 oil filter, 1 work bench, 1 bench vice, 10 drills, 2 cold chisels, 3 bitstocks, 2 bits, 1 level, 1 keyhole saw, 1 hand saw, 1 hack saw, 5 monkey wrenches, 3 sledges, 1 copper hammer, 3 hammers, 4 socket wrenches, 1 2-ft. steel square, 2 jack screws, 1 tool cupboard, 2 set differential blocks, 1 pair gas pliers, 1 set fire irons, 1 brass hydrant, 2 platform scales, 1 hay scales, 2 step ladders, 5 ladders, 2 lanterns, 2 lawn mowers, 1 barometer, 3 thermometers, 1 truck, 2 iron wheelbarrows, 1 iron pail, 2 indicators, 3 steam guages, 4 guage glasses, 85 cakes soap, 3 brooms, 100 lbs. tallow, 1 gas lamp with tubing, 1 24-inch elbow, 1 blow-pipe with blower, 1 furnace pot, 1 tar kettle, 11 grate sections with bars, 1 10-inch valve, 2 clocks, 1 book case, 1 bed, 4 chairs, 1 table, 1 desk, 2 floor brushes, 2 mops, 1 dust brush, 1 dust pan, 4 Stillson wrenches, 5 cuspidors, 1 2-inch Jenkins valve, 2 extra check valves for High Duty Worthington, 1 set drawings high duty Worthington, 1 ratchet drill, 8 pairs pipe tongs, 9 pipe dies, 2 flue scrapers, 1 oil cupboard, 45 gallons cylinder oil, 40 gallons machine oil, 11 7-inch rubber valves, 6 10-inch rubber valves, 20 5-inch rubber valves, 25 lbs Italian flax, 200 ft. felting, 20 lbs. metallic packing, 25 lbs. waste, 45 lbs. Garlock packing, 10 lbs. Vulcabeston packing, 10 lbs. asbestos packing, 5½ ft. of 1½x1½-inch Chesterton packing, 1½ ft. of 1¼x$\frac{7}{16}$-inch Chesterton packing, 14½ lbs. Eureka packing, 13 lbs. Favorite packing, 10 lbs. square tuck packing, 16 lbs. woven wire packing.

Property and Tools at Pumping Station No. 2.

One work bench and vise, 1 bit stock, 1 set of bits, 1 thermometer, 1 clock, 7 cold chisels, 4 monkey wrenches, 10 socket wrenches, 14 wrenches, 2 pinch bars, 2 gate wrenches, 3 steel drills, 1 1½-inch pipe tongs, 1 1-inch pipe tongs, 1 sledge hammer, 1 coal hammer, 2 long steel chisels, 4 taps, 1 axe, 2 ice

chisels, 4 grapple rakes, 1 iron rake, 5 hand hole gaskets, 2 slicing bars, 1 boiler hoe, 2 long handle shovels, 2 iron wheelbarrows, 6 lamps, 1 platform scales, 1 30-ft. Howe platform scales, 200 ft. cotton hose, 2 brooms, 2 dust brushes, 1 map of Lowell, 3 Stillson wrenches, 1 gallon measure, 100 lbs. waste, 35 gallons spindle oil, 1 tunnel, 10 lbs. hemp packing, 2 oil cans, 1 glass pitcher, 1 dozen glasses, 8 valves and spindles for Deane pump, 40 valve plates, 40 springs, 1 desk, 4 chairs, 1 grindstone, 48 sheets emery paper, 2 files, 1 copper hammer, 2 ladders, 1 step ladder, 2 iron pails, 1 map, 25 ft. 1-inch hose, 2 picks, 2 shovels, 2 pair rubber boots, 1 2-inch die plate and dies, 1 1-inch die plates and dies, ½ bbl. Valvoline oil, 35 gallons spindle oil, 25 lbs. cotton waste, 2 2-inch pipe cutters, 1 6-inch pipe cutter, 2 caulking hammers, 1 5-gallon oil can, 1 box piston packing, ½ bbl. soda ash, 3 glass guages, 1 ring for water piston, 1 ratchet drill, 2 ¾-inch taps.

Property and Tools at Pumping Station No. 3.

6 oil cup glasses, 5 wrenches and board for Worthington pumps, 1 18-inch monkey wrench, 1 12-inch monkey wrench, 1 8-inch monkey wrench, 2 Stillson wrenches, 4 guard wrenches, 3 off-set wrenches, 8 socket wrenches, 2 ¾-inch iron bolts, 1 ⅝-inch iron bolt, 5 gallons cylinder oil, 7 gallons spindle oil, ½ box Columbia metal polish, 12 lbs. Rainbow packing, 1 box ⅝-inch square flax packing, 2 tunnels, 1 hand saw, 1 clock, 1 dust pan, 1 brush, 1 broom, 1 2-inch scrape for well, 1 brass tray, 3 pair rubber boots, 2 oil cups, 3 6-inch valve studs, 6 6-inch rubber valves, 30 4-inch rubber valves, 3 packing hooks, 6 6-inch valve springs, 12 4-inch valve springs, 1 box ⅝-inch Eureka packing, ½ box ½-inch National packing, 1 box ⅜-inch Eureka packing, 50 ft. fibrus packing, 6 lamp wicks, 7 lantern wicks, 1 step ladder, 1 8-ft. ladder, 1 12-ft. ladder, 2 stands, 1 9-ft. running board, 30 ft. 1¼-inch hose, 1 bench, 30 ft. ⅜-inch hose, 1 vise, 1 platform scales, 1 iron wheelbarrow, 2 coal shovels, 1 sledge hammer, 1 broom, 2 slice bars, 2 boiler hoes, 1 hook bar, 6 gate bars, 1 bearing bar, 50 ft. ¾-inch hose, ½ bbl. lime, 1 pail fire clay, 4 iron pails, 6 drip pans, 6 brass oil cans and tray, 1 2-quart can, 2 gate wrenches, 3 chairs, 4 dippers, 1 lantern, 3 B. & H. lamps, 2 large lamps, 1 bracket lamp, 1 shade lamp, 12 60-gallon oil tanks, 50 gallons kerosene oil, 1 waste can, 25 lbs. waste, 1 10-gallon can, 1 5-gallon can, 1 iron rake, 1 mop, 1 hoe, 1 24-inch flange, 2 shovels, 1 pick, 18 fire brick, 3 lamp chimneys, 8 B. & H. lamp chimneys, 1 strainer, 1 2-inch scraper, 20 ft. ¾-inch pipe, 1 faucet, ½ spool Vulcabeston packing, 1 bottle parafine oil, 2 ⅝-inch stud bolts, 2 fusible plugs, 1 1-inch Jenkins valve disk, 1 1½-inch Jenkins valve disk, ½ lb. wire, 2 lbs. hemp, 15 pieces ¼-inch fibrus packing, 1 desk, 36 ft. 8-inch pipe, 25 ft. 6-inch pipe, 6 ft. 5-inch pipe, 1 5-inch elbow, 1 6-inch elbow, 2 6-inch ⅛ turns, 3 6-inch couplings, 25 ft. 2-inch pipe, 1 6-inch flange, 1 5-inch flange, 20 ft. 1-inch pipe, 1 machine for driving wells, 2 screens, 1 2-gallon can black paint, 2 paint brushes, 1 white-wash brush, 1 1-inch valve, 1 1¼-inch valve, 1 wooden wheelbarrow, 1 6-inch jack screw, 3 hand hole plates, 4 gaskets, 1 Venturi water meter, 11 ft. stove pipe.

Property at Stable.

7 horses, 8 single harnesses, 1 set double harness, 7 street blankets, 2 democrat wagons, 1 Goddard buggy, 7 sleighs, 5 wagons, 1 single truck, 1 double

truck, 7 stable blankets, 2 brooms, 6 brushes, 6 currycombs, 6 pitchforks, 7 rubber horse covers, 1 string of bells, 1 chamois skin, 1 box harness soap, 10 sponges, 1 wagon jack, 1 hay cutter, 2 feed boxes, 1 sprinkling can, 6 whips, 2½ tons of hay, 100 bushels of oats, 2 bags corn, 2 bags shorts, 2 bales straw, 3 lap robes, 1 wolf-skin robe, 15 lbs. grease, 2 pails, 1 can harness oil, 1 large sun shade, 2 wagon covers, 50 ft. 1-inch rubber hose.

Property and Tools at Resevoir.

1 boat, 2 lawn mowers, 1 scythe and snath, 1 wooden rake, 1 iron rake, 1 long handle shovel, 2 short handle shovels, 1 crow bar, 1 monkey wrench 1 scuff hoe, 1 long handle hoe, 1 axe, 1 wooden shovel, 1 ice chisel, 1 broom, 1 lantern, 1 wheelbarrow.

Movable Fixtures and Property at Office, City Hall.

Two roll-top desks, 2 standing desks, 1 double flat desk, 1 3-place inspector's desk, 1 2-place inspector's desk, 2 single inspector's desks, 2 heavy oak tables, 1 typewriter desk, 1 Remington typewriter, 1 small table, 1 vault table, 2 swivel upholstered chairs, 6 upholstered chairs, 12 cane seated armchairs, 8 swivel cane-seated chairs, 3 high chairs, 3 stools, 1 step chair, 1 settee, 1 bookcase, 1 water-tank, 2 water-pressure guages, 3 thermometers, 1 clock, 2 table gas lamps, 33 framed pictures—plans, etc.; 2 floor rugs, 2 rubber mats, 1 set street tools, 2 earthen spittoons, 6 brass spittoons, 6 waste paper baskets, 1 shovel (historic), 2 mirrors, 1 letter copying-press, 2 umbrella racks, 20 ink stands, 2 pen racks, 1 gas stove, 3 book racks, set tools (hammer, wrench. 2 screwdrivers, wire cutter, 1 plane, 1 saw, 1 chisel), 3 tumblers, boot-blacking outfit, 1 hair brush, 1 clothes brush, 1 dozen towels, 1 match chest, 1 fire-insurance map of Lowell, 1 atlas City of Lowell, 5 tin yearly boxes, 1 copy stand, 1 set Massachusetts statutes, 1 large dictionary, 1 large photo. album, 1 revolving book case,

REPORT OF THE CITY ENGINEER.

OFFICE OF CITY ENGINEER,
Lowell, Mass., January 1, 1897.

To the Lowell Water Board,

Gentlemen:—I have the honor to submit the Twenty-fourth annual report for the year ending December 31st, 1896, as follows:

PUMPAGE.

The average cost of pumping one million gallons into the low service reservoir was sixteen dollars and sixteen cents ($16.16).

The quantity pumped from the distributing mains of the low service into the high service reservoir was 36,877,428 gallons, and the cost of pumpage was eight dollars and twenty-eight cents ($8.28) per million gallons. To this cost must be added the average cost of pumpage into the low service reservoir, viz., sixteen dollars and sixteen cents ($16.16), making the total cost of pumpage into the high service reservoir for the year 1896, twenty-four dollars and forty-four cents ($24.44) per million gallons.

The following table shows the source of supply, quantity pumped and cost at the several stations during the year 1896.

TABLE SHOWING SOURCE OF SUPPLY, QUANTITY PUMPED AND COST AT THE SEVERAL STATIONS DURING THE YEAR 1896.

Stations.	Source of Supply.			Total in U. S. Gallons.	Cost.	
	River Water in Gallons.		Well Water in U. S. Gals.		Total.	Per Million Gals. Pumped
	Direct.	Filtered.				
No. 1 (W. Sixth St.)	43,849,280	148,356,733	1,051,410,777	1,243,616,790	$9,584.85	$7.71
No. 2 (Cook Wells)	.....	.....	514,176,657	514,176,657	9,126.89	17.75
No. 3 (Hydraulic Wells)	.....	.....	781,338,440	781,338,440	12,024.37	15.39
No. 4 (Boulevard Wells)	.....	.....	1,051,410,777	1,051,410,777	10,514.10	10.00
			3,399,336,651	3,590,542,664		
Deduct Pumpage at Station No. 4, repumped at Station No. 1	.....	.....	1,051,410,777	1,051,410,777		
Totals	43,849,280	148,356,733	2,346,925,874	2,539,131,887	$41,250.21	$16.25

The following tables showing the performance of the engines at Station No. 1 on West Sixth street, depth and quantity of water in the reservoir, average temperature of air and water and the average monthly and daily consumption of water have been compiled from the records of the engineer and gatekeeper.

TABLE SHOWING WORK DONE WITH MORRIS ENGINE (BEAM AND FLY WHEEL) FOR EACH MONTH DURING THE YEAR 1896.

Months.	No. of days pumping.	Average No. of hours pumping per day.	No. of hours pumping per month.	No. of strokes made per month.	Average No. of strokes made per minute.	Average head, including friction, in feet.	Quantity pumped per month in U. S. gallons.	Average quantity pumped per day in U. S. gallons.	No. gals. of water pumped into reservoir per lb. total coal consumed.	Duty in lbs. 1 ft. high with 100 lbs. coal used in pumping only; no deduction for ashes or clinkers.	Duty on total coal consumed; no deduction for ashes or clinkers.
January	22	8–30	186–55	129,826	11.58	160.98	41,544 320	1,888,378	648	104,570,651	86,951,880
February	15	9–44	146–00	99,554	11.36	161.70	31,857,280	2,123,819	672	107,615,668	90,585,354
March	....	....	....	....	....	....	....	....	....	....	....
April	....	...	....	....	...	....	....	....	....	....	....
May	....	....	....	....	....	....	....	....	....	....	....
June	....	....	....	....	....	....	....	....	....	....	....
July	...	....	....	....	....	....	....	....	....	....	....
August	4	14–19	57–15	35,493	10.33	160.69	11,357,760	2,839,440	469	68,529,889	62,865,087
September	....	....	....	....	....	....	...	....	....	....	....
October	....	....	....	....	....	....	....	....	....	....	....
November	....	....	..	. .	....	....	....	....	....	....	....
December	....	....	....	....	....	....	....	....	....	....	....
Totals and averages.	41	9–31	390–10	264,873	11.31	161.22	84,759,360	2,067,301	625	98,695,932	83,930,269

TABLE SHOWING WORK DONE WITH WORTHINGTON DUPLEX ENGINE FOR EACH MONTH DURING THE YEAR 1896.

MONTHS.	No. of days pumping.	Average No. of hours pumping per day.	No. of hours pumping per month.	No. of strokes made per month.	Average No. of strokes made per minute.	Average head, including friction in feet.	Quantity pumped per month in U. S. gallons.	Average quantity pumped per day in U. S. gallons.	No. gals. of water pumped into reservoir per lb. total coal consumed.	Duty in lbs. 1 ft. high with 100 lbs. coal used in pumping only; no deduction for ashes or clinkers.	Duty on total coal consumed; no deduction for ashes or clinkers.
January	....	....	....	....	....	....	....	....	....	....	....
February	8	8–43	69–45	48,145	11.50	161.72	14,924,640	1,865,580	373	60,651,423	50,331,651
March	6	11–50	71–00	49,829	11.70	161.17	15,446,990	2,574,498	268	38,860,446	36,026,901
April	15	16–46	251–35	174,683	11.57	161.79	54,151,730	3,610,115	374	52,161,301	50,362,395
May	1	20–00	20–00	13,714	11.43	160.82	4,251,340	4,251,340	353	51,597,940	47,313,467
June	2	23–45	47–30	30,842	10.82	162.02	9,561,020	4,780,510	373	52,424,268	50,378,535
July	3	20–20	61–00	41,084	11.23	161.45	12,736,040	4,245,347	436	60,776,889	58,695,203
August	....	....	....	....	....	....	....	....	....	....	....
September	3	16–20	49–00	30,473	10.36	162.42	9,446,630	3,148,877	395	53,435,173	53,435,173
October	....	....	....	....	....	....	....	....	....	....	....
November	3	12–40	38–00	23,252	10.20	163.00	7,208,120	2,402,707	357	51,508,750	48,450,337
December	2	10–45	21–30	12,482	9.68	162.72	3,869,420	1,934,710	261	38,010,526	35,443,115
Totals and averages	43	14–38	629–20	424,503	11.24	161.83	131,595,930	3,060.370	357	51,125,965	48,183,440

TABLE SHOWING WORK DONE WITH WORTHINGTON HIGH DUTY ENGINE FOR EACH MONTH DURING THE YEAR 1896.

MONTHS.	No. of days pumping	Average No. of hours pumping per day.	No. of hours pumping per month.	No. of strokes made per month.	Average No. of strokes made per minute.	Average head, including friction in feet.	Quantity pumped per month in U. S. gallons.	Average quantity pumped per day in U. S. gallons	No gals. of water pumped into reservoir per lb. total coal consumed.	Duty in lbs. 1 ft. high with 100 lbs. coal used in pumping only; no deduction for ashes or clinkers.	Duty on total coal consumed; no deduction for ashes or clinkers.
January	2	9–45	19–30	19,616	16.77	163.33	7,336,000	3,678,000	589	91,937,646	80,161,167
February	....	....	....	....	....	....	....	....	....	....	....
March	....	....	....	....	....	....	....	....	....	....	....
April	3	11–10	33–30	18,924	9.41	163.50	7,096,500	2,365,500	563	87,130,620	76,756,281
May	30	21–55	657–15	353,345	8.96	163 68	132,504,375	4,416,813	699	100,251,478	95,334,022
June	28	23–39	662–00	373,908	9 41	164.32	140,215,500	5,007,6 6	747	102,337,075	102,337,075
July	29	23–08	670–45	407,085	10.12	164.21	152,656,875	5,264,030	736	103,324,000	100,684,803
August	30	22–25	672–30	379,132	9.40	164.28	142,174,500	4,739,150	736	103,871,148	100 805,012
September	29	21–08	613–05	329,080	8 95	164 27	123,405,000	4,255,345	700	101 242,704	95,843,733
October	29	19–31	566–00	294,994	8 69	164.33	110,622,750	3,814,578	605	91,326,604	82,837,558
November	29	18–44	543–30	270,386	8.29	164 44	101,394,750	3,496,371	595	92,838,298	81,510,925
December	31	20–10	625–15	292,894	7 81	164.39	109,835,250	3,543,073	597	88,352,796	81,730,434
Totals and averages	240	21–06	5,063–20	2,739,364	9.02	164.22	1,027,261,500	4,280,256	677	98,160,978	92,698,457

TABLE SHOWING AMOUNT OF COAL USED FOR MORRIS ENGINE AT PUMPING STATION DURING THE YEAR 1896.

MONTHS.	COAL CONSUMED.			
	For starting fires, in lbs.	When pumping, in lbs.	For banking fires, in lbs.	Total per month in lbs.
January	6,600	53,300	4,200	64,100
February	4,500	39,893	3,000	47,393
March	....	....	....	....
April	....	....	..	....
May	....	....	....	....
June	....	....	....	....
July	....	....	....	....
August	1,600	22,195	400	24,195
September	....	....	....	....
October	....	....	....	....
November	...	....	....	....
December	....	....	....	....
Totals	12,700	115,388	7,600	135,688

TABLE SHOWING THE AMOUNT OF COAL USED FOR WORTHINGTON DUPLEX ENGINE AT PUMPING STATION DURING THE YEAR 1896.

Months.	Coal Consumed.			
	For starting fires, in lbs.	When pumping, in lbs.	For banking fires, in lbs.	Total per month, in lbs.
January	....	....	....	....
February	5,200	33,165	1,600	39,965
March	3,200	53,391	1,000	57,591
April	4,700	139,981	300	144,981
May	600	11,043	400	12,043
June	1,000	24,626	....	25,626
July	1,000	28,196	....	29,196
August	...	....	....	...
September	...	23,930	....	23,930
October	....	....	....	....
November	800	19,010	400	20,210
December	1,000	13,805	....	14,805
Totals	17,500	347,147	3,700	368,347

TABLE SHOWING AMOUNT OF COAL USED FOR WORTHINGTON HIGH DUTY ENGINE AT PUMPING STATION DURING THE YEAR 1896.

MONTHS.	COAL CONSUMED.			
	For starting fires, in lbs.	When pumping, in lbs.	For banking fires, in lbs.	Total per month, in lbs.
January	1,200	10,891	400	12,491
February	....	....	....	....
March	....	....	..	...
April	900	11,098	600	12,598
May	5,700	180,297	3,600	189,597
June	....	187,632	....	187,632
July	3,900	202,194	1,400	207,494
August	3,400	187,398	2,300	193,098
September	6,100	166,871	3,300	176,271
October	11,500	165,889	5,500	182,889
November	13,800	149,675	7,000	170,475
December	9,200	170,314	4,600	184,114
Totals	55,700	1,432,259	28,700	1,516,659

TABLE SHOWING WORK DONE WITH WORTHINGTON HIGH SERVICE ENGINE FOR EACH MONTH DURING THE YEAR 1896.

MONTHS.	No. of days pumping.	Average No. of hours pumping per day.	No. of hours pumping per month.	No. of strokes made per month.	Average No. of strokes made per minute.	Average head, including friction in feet.	Quantity pumped per month in U. S. gallons.	Average quantity pumped per day in U. S. gallons.	No. gals. of water pumped into reservoir per lb. total coal consumed.	Coal in lbs. used when pumping.
January	9	7–47	70–00	183,696	43.74	71.62	2,571,744	285,749	300	8,572
February	8	7–43	61–45	143,108	38.63	72.62	2,003,512	250,439	300	6,678
March	8	8–19	66–30	152.990	38.34	72.20	2,141,860	267,732	300	7,151
April	8	9–33	76–25	142,151	31.00	70.60	1,990,114	248,764	300	6,636
May	9	11–20	102–00	213.972	34.96	65.97	2,995,608	332,845	300	9,993
June	9	16–29	148–25	212,139	23.82	65.83	2,969,946	329,994	300	9,874
July	30	23–29	704–30	276,373	6.54	67.75	3,869,222	128,974	300	12,898
August	31	23–52	740–00	322.019	7.25	67.57	4,508,266	145,428	300	15,028
September	25	23–41	592–00	246,234	6.93	69.44	3,447,276	137,891	300	11,491
October	28	23–47	666–00	252,450	6.32	69.44	3,534,300	12,6225	300	11,771
November	24	23–42	569–00	232,180	6.80	69.44	3,250,520	135,438	300	10,825
December	29	22–33	654–00	256,790	6.54	69.44	3,595,060	123,968	300	11,971
Totals and averages	218	20–25	4,450–35	2,634,102	9.86	69.00	36,877.428	169,163	300	122,888

PUMPING STATION, MORRIS ENGINE, RUNNING EXPENSES FOR THE YEAR 1896.

Pay of engineers and firemen	$341.04
65 1362-2000 tons of coal (Cumberland, 1895) at $3.814	250.51
2 326-2000 tons of coal (Cumberland, 1896), at $3.705	8.01
Electric light	12.66
Gas for lighting works	12 81
13.55 gallons of cylinder oil, at .535	7.25
4.69 gallons of engine oil, at .279	1.31
19 1-2 pounds of packing, at 1.922	37.47
38.15 pounds of cotton waste, at .068	2.59
Repairs on engine	76.17
Repairs on boilers	4.67
Tools and stock	5.16
Sundries	.78
Total	$760 43

Cost of pumping water into reservoir per million gallons, $8.97.
Cost of pumping water one foot high per million gallons, .05 56-100.

PUMPING STATION, WORTHINGTON DUPLEX ENGINE, RUNNING EXPENSES FOR THE YEAR 1896.

Pay of engineers and firemen	$535.92
150 232-2000 tons of coal (Cumberland, 1895) at $3.814	572.54
34 115-2000 tons of coal (Cumberland, 1896) at 3.705	126.18
Electric light	19.89
Gas for lighting works	20.13
21.3 gallons of cylinder oil, at .535	11.40
7.37 gallons of engine oil, at .279	2.06
13½ pounds of packing, at .431	5.82
59.95 pounds of cotton waste at .068	4.08
Repairs on boilers	7.33
Tools and stock	8.12
Sundries	1.23
Total	$1,314.70

Cost of pumping water into reservoir per million gallons, $9.99.
Cost of pumping water one foot high per million gallons, .06 17-100,

PUMPING STATION, WORTHINGTON HIGH DUTY ENGINE.
RUNNING EXPENSES FOR THE YEAR 1896.

Pay of engineers and firemen	$3,995.06
65 842-2000 tons of coal (Cumberland, 1895) at $3,814	249.52
692 1817-2000 tons of coal (Cumberland, 1896) at $3.705	2,567.23
Electric light	148.25
Gas for lighting works	150.06
158.77 gallons of cylinder oil, at .535	84.94
54.94 gallons of engine oil, at .279	15.33
145.15-16 pounds of packing, at .795	116.08
446.9 pounds of cotton waste, at .068	30.39
Repairs on engine	28.49
Repairs on boilers	54.67
Tools and stock	60.50
Sundries	9.20
Total	$7,509.72

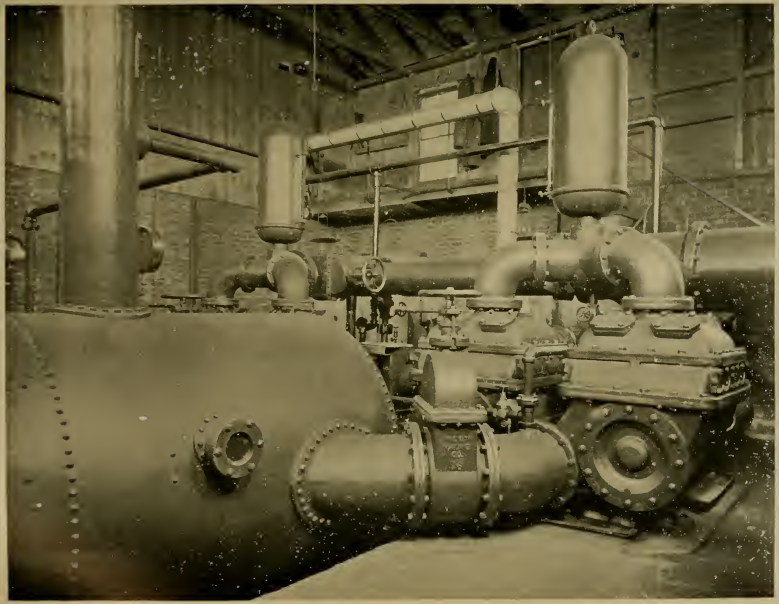
Cost of pumping water into reservoir per million gallons, $7.31.
Cost of pumping water one foot high per million gallons, .04 45-100.

RESERVOIR, BEACON STREET, 1896.

Months.	Depth in feet.	Quantity in U. S. gallons.	Temperature in degrees.	
			Of water.	Of air.
January	18.90	28,663,223	36.22	23 10
February	19.03	28,888,596	36.33	26.98
March	18.42	27,874,558	36.27	30.06
April	18.92	28,702,140	44.46	47.96
May	19.56	29,775,541	53.63	60.93
June	18.94	28,736,916	62.40	66.27
July	16.72	25,085,521	70.80	72.97
August	14.98	22,289,074	70.94	70.77
September	18.16	27,445,412	62.69	61.10
October	17 41	26,200,199	57.91	48.57
November	18.53	28,046,050	52.04	44.33
December	18.76	28,438,219	45.57	27.53

TABLE SHOWING THE AVERAGE MONTHLY AND DAILY CONSUMPTION OF WATER FOR THE YEAR 1896.

Months.	Gallons per month.	Gallons per day.
January	258,770,484	8,347,435
February	230,802,089	7,958,693
March	206,000,017	6,645,162
April	201,710,394	6,723,680
May	218,075,234	7,034,685
June	212,796,816	7,093,227
July	229,635,753	7,407,605
August	218,820,368	7,058,722
September	185,936,893	6,197,896
October	185,090,465	5,970,660
November	178,687,862	5,956,262
December	211,264,521	6,814,985
Totals and averages	2,537,590,896	6,933,308



AIR SEPARATOR AND PUMPS, WELL PLANT NO. 3.

SUMMARY OF STATISTICS.

Report of 1896.

In accordance with the recommendations of the New England Water Works Association.

Lowell Water Works, Middlesex County, Mass.

Population by census of 1895, 84,359.

Date of construction, 1870 to 1873.

Date of construction, High Service, 1881.

Date of construction, Driven Wells, 1893 to 1896.

Source of supply — Merrimack River, through filter gallery, filter bed and direct, also two hundred ten (210) driven wells in the valley of River Meadow Brook and one hundred sixty-nine (169) driven wells at Pawtucket Boulevard.

Mode of supply — Pumping to reservoir and pumping direct.

PUMPING.

1. Builders of pumping machinery:

   One engine, capacity 5,000,000 gals. in 24 hours, Henry G. Morris.

   One engine, capacity 5,000,000 gals. in 24 hours, Henry R. Worthington.

   One engine, capacity 10,000,000 gals. in 24 hours, Henry R. Worthington.

   One engine, capacity 500,000 gals. in 24 hours, Henry R. Worthington.

   One engine, capacity 3,000,000 gals. in 24 hours, The Deane Steam Pump Company.

   One engine, capacity 3,000,000 gals. in 24 hours, The Deane Steam Pump Company.

One engine, capacity 3,000,000 gals. in 24 hours, Henry R. Worthington.

One engine, capacity 3,000,000 gals. in 24 hours, Henry R. Worthington.

One engine, capacity 3,000,000 gals. in 24 hours, Knowles Steam Pump Works.

One engine, capacity 3,000,000 gals. in 24 hours, Knowles Steam Pump Works.

2. Description of coal used :
   (b) Kind, bituminous.
   (c) Size, broken.
   (d) Brand, Cumberland.
   (e) Price per gross ton delivered, $4.187.
   (g) Wood, price per cord.

3. Coal consumed for the year, in pounds, 2,020,694.

4. Wood consumed for the year in pounds.

$$\frac{\qquad\qquad\qquad\qquad}{3} = \text{coal in lbs.} = 2{,}400.$$

5. Total fuel consumed for the year, in pounds, 2,023,094.
6. Total pumpage for the year in gallons, 1,243,616,790.
7. Average static head against which pumps work, 156.21.
8. Average dynamic head against which pumps work, 162.42.
9. Number of gallons pumped per pound of coal, 615.
10. Duty in foot pounds per 100 pounds of coal, using the following formula, making no deduction for starting or banking fires, or heating building :—

$$\text{Duty} = \frac{\text{Gallons pumped (6)} \times 8.34 \text{ (lbs.)} \times 100 \times \text{dynamic head (8)}}{\text{Total fuel consumed (5)}} = 83{,}267{,}615$$

Cost of Pumping Figured in Pumping Station Expenses of $9,584.85.

11. Per million gallons raised against average dynamic head (8) into reservoir, $7.71.

12. Per million gallons raised one foot high (dynamic), .04 $\frac{75}{100}$.

2 to 5 and 7 to 12 inclusive do not include driven wells.

6 includes pumpage from driven well plant at Pawtucket Boulevard.

Pumpage from driven wells in valley of River Meadow Brook, 1,295,515,097 gallons.

NEW SUPPLY.

FIRST TUBE WELL PLANT.

It is over three years since pumping was begun at this plant, and I think by this time the most sceptical mind must be thoroughly convinced that there is a permanent supply of water here. This should now be made a permanent station, the remainder of the suction mains lowered, a permanent pumping station built and one high duty pump put in the place of one of the present Deane pumps. The other Deane pump should be reserved for use during repairs on the high duty pump. I would recommend that this work be begun as soon as possible, as the cost of pumping with the low duty pumps will always be a great burden to the department.

SECOND TUBE WELL PLANT.

April 9th, 1896, I sent my certificate to the Water Board stating that the Hydraulic Construction Company had fulfilled its contract to supply the City of Lowell with not less than 2,000,000 gallons of ground water each and every day for one year. During the year's trial the company pumped 1,137,961,-983 gallons, this being at the rate of 3,109,186 gallons per day.

The wells were therefore accepted according to the contract, and all the machinery, boilers and buildings put up by the contractors were purchased by the city at the contract price, which was seventy-five (75) per cent. of their cost. This settlement was satisfactory to both parties, and the plant was at once turned over to the regular Water Works Department and has been used when needed throughout the summer.

THIRD TUBE WELL PLANT.

Built by B. F. Smith and Brother, Boston, Mass.

In closing my report last year I stated that "the wells had been driven and the suction mains were on the ground ready to be laid." This plant was finished and water pumped into the city conduit February 18th, 1896. The plant contains one hundred and sixty-nine (169) two and one-half ($2\frac{1}{2}$) inch wells which vary in depth from twenty-seven (27) to forty (40) feet. They are connected by flanged suction pipe of the following sizes:

20 inch suction pipe	13 feet.
14 " " "	1152 "
12 " " "	326 "
10 " " "	170 "
8 " " "	130 "
6 " " "	265 "
Total	2056 "

The suction mains are connected with a large horizontal air receiver, eleven (11) feet long and six (6) feet in diameter, and each pump is connected independently with the receiver. The suction mains are laid three (3) feet below the surface of the ground, upon a pile foundation, on a true grade declining from the pumps. Great care was taken by the contractor in making the suction mains, branches and all connections air tight. Every pipe and special was tested for air before it was

laid, and to our great surprise many of them which had passed the water test were found defective under this test; that this was a wise precaution has been well proven, as this plant has been very free from air.

The contractors have built a very neat wooden pumping station in which they have placed two ten (10) by eighteen inch by 18 inch Blake pumps, each having a capacity of 3,000,000 gallons per day. As the pumps deliver the water into a conduit here, only (4) feet above the plungers, and have never worked with a vacuum of over seventeen (17) inches, their work is very light.

This plant so far as tested has proved very satisfactory; it is still owned by the contractors who are nearing the end of their one year test. The pumping from this plant was begun February 28th and continued to March 2nd, when on account of high water in the Merrimack river the pump pit was flooded, and pumping stopped for a few days. At the same time a break occurred in the old brick conduit which connected the plant with the old pumping station, so that no water could be pumped until this was repaired and it was not until April 6th that regular pumping was begun here.

The following is a record of the pumping from April 6th, 1896, to January 1st, 1897:

Date.	Average Pumpage per Day.	Pumpage per Month.
April 6th to May 1st	3,364,608 gallons.	47,455,021 gallons.
May	3,858,324 "	119,608,071 "
June	4,530,484 "	135,914,540 "
July	4,906,478 "	152,100,772 "
August	4,616,262 "	143,104,126 "
September	4,161,978 "	124,859,351 "
October	3,467,214 "	100,549,203 "
November	3,321,537 "	99,646,123 "
December	3,552,843 "	110,138,150 "
Total		1,033,375,357 "

Since July the superintendent of the Water Works has limited the amount of water pumped at this station, therefore it is impossible to state at the present time how much water could be obtained here.

ANALYSIS.

The State Board of Health has analyzed a sample of water from each well plant every month that the plants have been in operation, and one from the Merrimack River at the same time. A copy of the analysis has been kindly sent me as soon as possible, so that the quality of the water has been very carefully watched.

Inspector Thomas O. Allen has analyzed samples from the Smith well plant as often as once a week during the trial of that plant.

A copy of the analysis from the State Board of Health will be found annexed to this report.

CONCLUSION.

Authorized by a vote of the Water Board, I began on the third day of August, 1891, the work of finding a new supply of water for the City of Lowell by the use of driven wells. This search was long and at times discouraging, but successful at last, and on the 28th day of February, 1896, our city had an abundant supply of excellent water. Part of the city had well water supplied to it in September, 1893, but it was February, 1896, before the whole city had an adequate supply.

During all this time I have received from the Water Board, both past and present, great encouragement and hearty and continued co-operations, for which I desire to return earnest thanks. I would acknowledge the help which Inspector

Thomas O. Allen has so readily given, in analyzing the many samples of water, and also the kindness and assistance which I have received at all times from Superintendent R. J. Thomas.

Respectfully submitted,

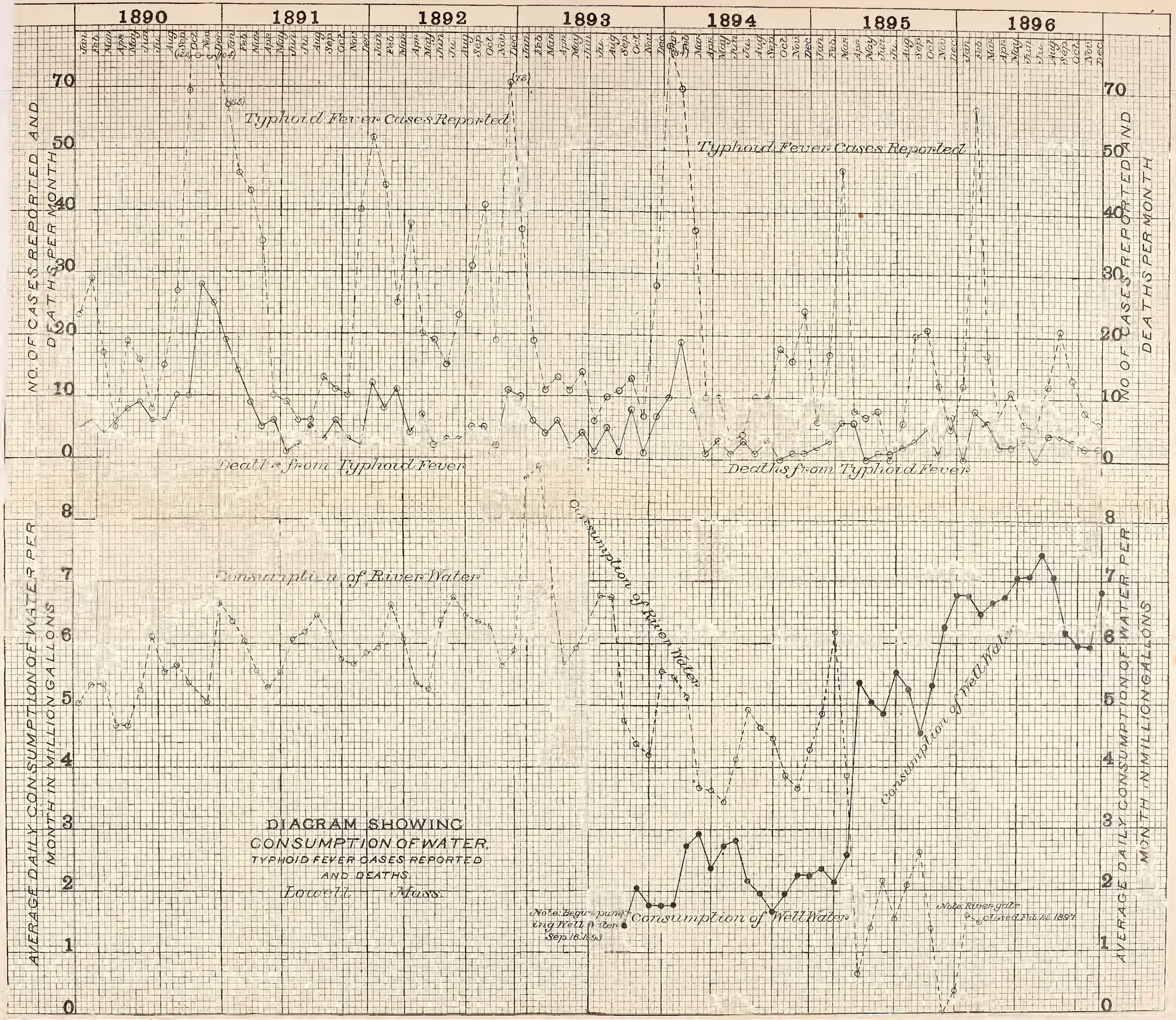
George Bowers,
City Engineer.

COMMONWEALTH OF MASSACHUSETTS.—STATE BOARD OF HEALTH, LOWELL.

WATER ANALYSIS.

(PARTS IN 100,000.)

No.	Date of Collection.	Date of Examination.	Appearance. Turpidity.	Appearance. Sediment.	Appearance. Color	Odor. Cold.	Odor. Hot.	Residue on Evaporation. Total	Residue on Evaporation. Loss on Ignition	Residue on Evaporation. Fixed.	Ammonia. Free.	Ammonia. Albuminoid. Total	Ammonia. Albuminoid. In solution.	Ammonia. Albuminoid. In suspens'n.	Chlorine.	Nitrogen as Nitrates.	Nitrogen as Nitrites.	Hardness.	Iron.	Oxygen Consumed.	Remarks.
15,916	Jan., 1896. 21	22	Distinct.	Slight.	0.30	Distinctly musty.	Decidedly musty and disagreeable.	3.80	1.50	2.30	.0028	.0140	.0126	.0014	.18	.0120	.0000	1.4	....	.4173	Merrimack River.
16,089	Feb. 18	19	Slight.	Slight.	0.40	Faintly musty.	Distinctly vegetable and musty.	3.05	1.00	2.05	.0018	.0146	.0134	.0012	.14	.0080	.0000	0.8	....	.5621	" "
16,262	March 17	18	Distinct.	Slight.	0.33	Distinctly unpleasant.	Distinctly musty and disagreeable.	2.60	1.00	1.60	.0016	.0132	.0100	.0032	.15	.0100	.0000	1.1	....	.4345	" "
16,449	April 21	22	Distinct.	Cons.	0.40	Faintly mouldy and unpleasant.	Distinctly mouldy.	2.80	1.00	1.80	.0002	.0178	.0134	.0044	.07	.0080	.0000	0.5	....	.4789	" "
16,620	May 19	20	Distinct ropy.	Slight earthy.	0.28	Distinctly vegetable and mouldy.	Distinctly vegetable and sweetish.	2.85	1.20	1.65	.0016	.0152	.0126	.0026	.14	.0070	.0000	1.0	....	.4228	" "
16,817	June 16	18	Distinct.	Slight.	0.40	Distinctly vegetable.	Distinctly vegetable and mouldy.	3.55	1.35	2 20	.0072	.0168	.0146	.0022	.11	.0050	.0001	1.0	....	.5698	" "
17,029	July 21	22	Distinct green.	Slight green.	0.23	Distinctly vegetable.	Distinctly vegetable and sweetish.	3.80	1.20	2.60	.0066	.0208	.0154	.0054	.22	.0050	.0004	1.3	....	.0217	" "
17,234	Aug. 18	19	Distinct.	Cons. green.	0.28	Distinctly vegetable.	Distinctly vegetable.	3.70	1.40	2.30	.0026	.0186	.0138	.0048	.24	.0050	.0003	0.8	....	.3448	" "
17,471	Sept. 15	16	Slight.	Cons.	0.48	Distinctly vegetable.	Distinctly vegetable and mouldy.	3.90	1.50	2.40	.0064	.0180	.0138	.0042	.18	.0020	.0001	0.8	....	.6474	" "
17,676	Oct. 20	21	Slight.	Slight.	0.75	Distinctly vegetable and mouldy.	Distinctly vegetable and mouldy.	4.45	1.70	2.75	.0040	.0200	.0188	.0012	.17	.0050	.0003	1.0	....	.9519	" "
17,877	Nov. 17	18	Slight.	Cons.	0.50	Distinctly vegetable and mouldy.	Distinctly vegetable and mouldy.	3.70	1.30	2.40	.0024	.0146	.0130	.0016	.18	.0100	.0003	1.2	....	.5928	" "
18,124	Dec. 15	16	Slight.	Cons. floc.	0.40	Distinctly musty.	Distinctly musty.	3.50	1.20	2.30	.0040	.0172	.0124	.0048	.23	.0070	.0001	1.0	.. .	.5483	" "


1890
1891
1892
1893
1894
1895
1896
Jan. Feb. Mar. Apr. May Jun. Jul. Aug. Sep. Oct. Nov. Dec.
NO. OF CASES REPORTED AND DEATHS PER MONTH
Typhoid Fever Cases Reported
Deaths from Typhoid Fever
(122)
(104)
(65)
(72)
AVERAGE DAILY CONSUMPTION OF WATER PER MONTH IN MILLION GALLONS
Consumption of River Water
Consumption of Well Water
Note: Beginning pumping Well Water Sep. 16. 1893
Note: River gate closed Feb. 22 1897
DIAGRAM SHOWING
CONSUMPTION OF WATER,
TYPHOID FEVER CASES REPORTED
AND DEATHS.
Lowell Mass.

COMMONWEALTH OF MASSACHUSETTS.—STATE BOARD OF HEALTH, LOWELL.

WATER ANALYSIS.

(PARTS IN 100,000.)

No.	Date of Collection.	Date of Examination.	Appearance. Turpidity.	Appearance. Sediment.	Appearance. Color	Odor. Cold.	Odor. Hot.	Residue on Evaporation. Total	Residue on Evaporation. Loss on ignition.	Residue on Evaporation. Fixed.	Ammonia. Free.	Ammonia. Albuminoid. Total	Ammonia. Albuminoid. In solution.	Ammonia. Albuminoid. In Suspens'n.	Chlorine.	Nitrogen as Nitrates.	Nitrogen as Nitrites.	Hardness.	Iron.	Oxygen Consumed.	Remarks.
15,918	Jan., 1896. 21	22	Very Slight.	Very Slight.	0.03	None.	None.	9.80	....	....	.0000	.0036	....	....	.54	.0420	.0001	4.0	.0110	.1014	Cook Wells.
16,090	Feb. 18	19	None.	None.	0.03	None.	None.	9.30	....	....	.0000	.0030	....	....	.73	.0470	.0000	4.6	.0070	.0616	" "
16,263	Mar. 17	18	None.	Slight.	0.02	None.	None.	8.40	....	....	.0000	.0034	....	...	.55	.0420	.0000	3.5	.0060	.0829	" "
....	April		Plant not running.				...	....	....	....	....	....	....	....	..	....	....	..	....	....	" "
16,622	May 19	20	None.	None.	0.00	None.	None.	7.90	....	....	.0006	.0031	....	....	.50	.0350	.0000	3.4	.0050	.0858	" "
....	June		Plant not running.				...	....	....	....	....	....	....	....	..	....	...	..	....	....	" "
....	July		"				....	....	....	....	....	....	....	....	..	....	....	..	....	....	" "
....	Aug.		"				....	....	....	....	....	....	....	....	..	....	....	..	....	.. .	" "
....	Sept.		"				....	....	....	....	....	....	....	....	..	....	....	..	....	....	" "
17,679	Oct. 20	21	None.	None.	0.03	None.	None.	7.50	....	....	.0 02	.0018	....	....	.54	.0800	.0002	3.3	.0070	.0932	" "
....	Nov.		Plant not running.				....	.. .	....	....	...	....	....	....	..	....	....	..	....	....	" "
18,125	Dec. 15	16	None.	None.	0.03	None.	None.	7.30	....	...	.0002	.0056	....	....	.58	.0580	.0000	3.9	.0050	.0975	" "

WATER ANALYSIS.

(PARTS IN 100,000.)

No.	Date of Collection.	Date of Examination	Appearance. Turpidity.	Appearance. Sediment.	Appearance. Color	Odor. Cold.	Odor. Hot.	Residue on Evaporation. Total	Residue on Evaporation. Loss on ignition.	Residue on Evaporation. Fixed.	Ammonia. Free.	Ammonia. Albuminoid. Total	Ammonia. Albuminoid. In solution.	Ammonia. Albuminoid. In suspension.	Chlorine.	Nitrogen as Nitrates.	Nitrogen as Nitrites.	Hardness.	Iron.	Oxygen Consumed.	Remarks.
15,917	Jan., 1896. 21	22	Distinct rusty.	Slight rusty.	Filt. 0.02	Distinctly vinous.	None.	15.30	....	....	.0054	.0044	....	....	.33	.0080	.0000	7.1	.0980	.0998	Hydraulic Wells.
16,091	Feb. 18	19	Slight rusty.	Cons. rusty.	0.12	None.	None.	14.90	....	....	.0066	.0054	....	....	.32	.0080	.0000	6.6	.0670	.1193	" "
16,264	March 17	18	None.	Slight.	0.10	None.	None.	12.10	....	....	.0068	.0034	....	....	.35	.0070	.0000	5.1	.0700	.1327	" "
16,450	April 21	22	Slight.	Slight.	0.12	None.	None.	10.10	....	....	.0068	.0048	....	....	.23	.0100	.0000	4.6	.0680	.1140	" "
16,621	May 19	20	Decided rusty.	Cons. rusty.	0.04	None.	None.	10.50	...	....	.0068	.0062	....	....	.31	.0050	.0000	4.6	.2400	.1326	" "
16,818	June 16	18	None.	Very Slight.	0 13	None.	Faintly vegetable.	9.60	....	....	.0054	.0046	....	....	.34	.0040	.0000	4.2	.0040	.1378	" "
17,027	July 21	22	Slight clayey.	Slight.	0.13	None.	Distinctly earthy.	10 00	....	....	.0064	.0046	....	....	.34	.0070	.0000	4.3	.0300	.1162	" "
17,235	Aug. 18	19	Slight milky.	Slight.	0.10	Faintly vegetable.	Faintly vegetable.	9.80	...	....	.0058	.0036	....	....	.32	.0050	.0000	4.2	.0450	.16 8	" "
17,464	Sept. 15	16	Distinct.	Slight.	0.12	None.	Distinct.	10.·0	....	....	.0060	.0018	....	....	.34	.0070	.0000	4.6	.0400	.1310	" "
17,678	Oct. 20	21	Very slight.	Slight iron.	0.10	None.	Faintly vegetable.	10.80	....	....	.0070	.0056	....	....	.32	.0070	.0005	4.9	.0630	.1382	" "
17,879	Nov. 17	18	Slight.	Cons.	0.10	None.	None.	12.30	....	....	.0080	.0044	....	....	.38	.0100	.0002	5.1	.0420	.1755	" "
....	Dec.		Plant not running.				....	....	....	....	....	....	....	....	..	....	....	..	....	....	" "

COMMONWEALTH OF MASSACHUSETTS.—STATE BOARD OF HEALTH, LOWELL.

WATER ANALYSIS.

(PARTS IN 100,000.)

No.	Date of Collection.	Date of Examination.	Appearance. Turpidity.	Appearance. Sediment.	Appearance. Color	Odor. Cold.	Odor. Hot.	Residue on Evaporation. Total	Residue on Evaporation. Loss on ignition.	Residue on Evaporation. Fixed.	Ammonia. Free.	Ammonia. Albuminoid. Total	Ammonia. Albuminoid. In solution.	Ammonia. Albuminoid. In suspens'n.	Chlorine.	Nitrogen as Nitrates.	Nitrogen as Nitrites.	Hardness.	Iron.	Oxygen Consumed.	Remarks.
16,371	April, 7	1896. 8	None.	None.	0.00	None.	Faintly vegetable.	6.80	....	....	.0004	.0004	....	...	.56	.1800	.0000	2.6	.0030	.0172	Boulevard Wells.
16,623	May 19	20	None.	None.	0.00	None.	None.	4.00	....	....	.0020	.0018	....	....	.31	.0600	.0000	2.0	.0020	.0156	" "
16,819	June 16	18	None.	None	0.00	None.	None.	3.80	....	....	.0014	.0012	....	....	.26	.0310	.0000	1.6	.0030	.0223	" "
17,028	July 21	22	None.	Slight white.	0.03	None.	None.	4.70	....	....	.0074	.0022	....	....	.23	.0250	.0000	1.7	.0100	.0420	" "
17,236	Aug. 18	19	None.	Slight.	0.02	None.	None.	3.70	....	....	.0056	.0018	....	....	.24	.0150	.0001	1.4	.0030	.0390	" "
17,472	Sept. 15	16	Very slight.	Slight rusty.	0.01	None.	None.	4.50	....	....	.0068	.0024	....	....	.26	.0190	.0001	1.7	.0140	.0273	" "
17,677	Oct. 20	21	None.	Very slight.	0.02	None.	None.	3.70	....	....	.0056	.0024	....	....	.26	.0200	.0003	1.6	.0160	.0671	" "
17,878	Nov. 17	18	None.	Slight.	0.02	None.	None.	4.40	....	....	.0050	.0012	....	....	.29	.0270	.6001	1.8	.0150	.0858	" "
18,126	Dec. 15	16	None.	Slight reddish.	0.03	None.	None.	3.60	....	....	.0054	.0038	....	....	.26	.0300	.0001	2.2	.0220	.0413	" "

ANNUAL REPORT

OF THE

OVERSEERS OF POOR

FOR THE

CITY OF LOWELL,

WITH ACCOMPANYING PAPERS,

FOR MUNICIPAL YEAR 1896.

LOWELL:
SUNDAY PRESS PRINT, FISKE BUILDING.
1897.

CITY OF LOWELL.

IN BOARD OF ALDERMEN, March 2, 1897.

Received and ordered on file; sent down for concurrence.

GIRARD P. DADMAN, City Clerk.

IN COMMON COUNCIL, March 2, 1897.

Received and ordered on file in concurrence.

FRANK N. OWEN, Clerk.

Board of Overseers of the Poor.

LOWELL, MASS., 1897.

JAMES McKINLEY, Chairman, 24 West Meadow Road.

Ward 1—SAMUEL HOLGATE,	6 Elliot Street.
Ward 2—THOMAS MAHONEY,	137 Colburn Street.
Ward 3—HORACE ELA,	407 Walker Street.
Ward 4—JOHN J. GILBRIDE,	10 Prospect Street.
Ward 5—DANIEL J. O'BRIEN,	151 Concord Street.
Ward 6—CHARLES H. KIMBALL,	100 Myrtle Street.
Ward 7—JAMES McKINLEY,	24 West Meadow Road.
Ward 8—HENRY J. WILLIAMS,	354 Pine Street.
Ward 9—HERBERT V. HUNT,	116 Fort Hill Avenue.

Secretary and Superintendent Out-Door Poor.

MARTIN J. COURTNEY, ... 26 Ames Street.

Office: City Hall. Hours: 9 a. m. to 3 p. m.

Superintendent of In-Door Poor.

ALBERT PINDER, . . . Office and Residence: City Farm.

City Dispensary.

JOHN F. BOYLE, Clerk, ... City Hall.

Office hours: From 9 a. m. to 5 p. m.

REPORT OF THE SECRETARY

OF THE

OVERSEERS OF POOR.

To His Honor the Mayor and the Honorable the City Council of the City of Lowell:

GENTLEMEN:—In accordance with the rules of your body and in furtherance of an old and wise custom, I herewith submit for your consideration, my annual report, as Secretary and Superintendent of Out Door Poor, for the municipal year ending December 20, 1896.

I am well aware of the fact that extended reports, besides being of questionable propriety oftentimes fail of their object, and do not get that consideration which a briefer one would meet with. If this paper should reach such a length as to be included in that class, I can only crave your indulgence with the excuse that the importance of the work done by the pauper department demands, in my opinion, more than a brief summing up, prefixed to a row of figures.

That the department's efforts are not known by the general public is a lamentable fact and one that should be remedied. It is of paramount importance to every tax payer and resident of our city to familiarize himself with its workings, so that he can judge intelligently where the large amounts annually appropriated go to.

So little of the details are known to those not closely interested that I feel it my duty to give to the general public a clear and concise report of the workings of the different branches under my supervision. I also deem it advisable at this time, gentlemen, to submit for your consideration such recommendations as my daily experiences have led me to believe would be for the best interests of the department, trusting that you will receive them in the spirit in which they are made.

There is little that can be said in the way of comparison between the past year and any previous one in the history of the department. The business depression which set in in '94 and continued throughout '95, seemed to reach its climax of inactivity in this city in 1896. No city in the state suffered any more than Lowell. Some of her largest industries have been closed permanently, while others ran on but meagre time not yielding money enough, to the help, to keep them from actual want.

All business has been at a standstill. In such times as these business in the pauper department reaches its highest mark. As is well known Lowell's laboring classes are made up, for the most part, of unskilled

laborers, whose pay in good times is barely sufficient to eke out an existence on and don't allow the saving of much money. While business is good, they can keep off the pauper rolls, but the moment any industrial depression sets in, hnndreds are thrown upon the city's charity.

That depression has continued for many months past, and at present, there doesn't seem to be any sign of its departure.

Never were demands made more numerously than now, as the necessity of pressing five teams into service on the day before Christmas, to deliver supplies, will bear witness to.

Not for many years has there been so much misery and suffering, and never has there been so much poverty among the worthy poor.

Day after day, I have able-bodied, good meaning men, fathers of families, who detest the idea of pauperizing themselves and their little ones, apply to me for work enough to enable them to keep their families from coming on the department. The work not being forthcoming the only recourse left for them is to receive pauper aid, the consequence is that during the past year we added more new names to the pauper list than were ever added before in any one year in the history of the department.

The inability of the head of the pauper department to find emyloyment for many of the applicants for assistance prevents him from reducing

the business and as a consequence, it is, and has been for a number of years, on the increase. If a Bureau of Employment could be started its benefits would be incalculable, and not only the department but the applicants would be benefitted. I think it entirely feasible to start such a bureau and feel confident that it would meet with the approval of our most interested citizens. Employment is the enemy of pauperism and unless it can be furnished pauperism flourishes.

OUTSIDE AID.

It is under this head that the major part of the business of the Secretary's office is done. The policy of aiding persons outisde of the almshouse commends itself to all familiar with the business.

Commitment to the almshouse entails upon the city the full support of the family besides breeding an inclination to throw away ambition and self-reliance, and to settle down to a state of hopeless degeneracy. Once get a person into the habit of being fully supported in the almshouse, and he becomes a veritable barnacle with but little prospect of doing anything whatever for himself.

Whereas with outside aid one can tide him over the roughest times and force him to do for himself and his when the opportunities present themselves. It is not the intention of the department to fully

support anyone under this head but to simply aid them to get along, with fate against them.

The calls this year have been very numerous and the amount of outside aid furnished totals up to $12,761.50. That represents the value of the provisions and fuel furnished to 742 familics consisting of 2,633 persons. Last year the total amount furnished was $10,638.44 delivered to 659 families consisting of 2,174 persons. Of this number 711 were state cases and 195 had settlements in other cities or towns, leaving 1,727 persons aided who belonged to this city. From the out of town cases $2,150.67 will be realized leaving the total cost to the city on account of out-door aid at $10,610.83.

The matter of discriminating between the worthy and the unworthy, and at the same time not to allow any to actually suffer, is a trying one, and one demanding considerable attention. There is so much detail attending the distribution of aid that it is well nigh impossible to escape being imposed on occasionally, but I have no hesitancy in saying, that the number of unworthy cases compared with the large number assisted is but very few. Ot course there is a class of ne'er do-wells who are regular pensioners on the department and will continue to be so. In most every case there are dependent children and you cannot punish the offenders without inflicting injury on many innocent victims. It is the innocent victims who make the dispensing of

aid a complicated problem. There are many receiving the benefits who are in every way worthless but receive it simply because it is the lesser part of a possibly greater evil. It isn't anything new to the pauper department officials throughout the state to be informed that some of those they are aiding are unworthy. All know that, and find themselves unable to overcome it.

All that can be done is to keep in perfect touch with the conditions of your applicants, and to visit them often. No family should be aided from this office without being visited by a representative. With the vast amount of detail work to be done in the office together with the numerous demands made, it is simply impossible to do the work with the present force employed. It would be a stroke of economy to add another clerk to the office, whose business shall be to do all the visiting. He would find enough to take up all his time, and the fruits of his work would more than pay for his services. The constant demands upon the Secretary's time prevents him from giving to the visiting that frequency which the necessity demands.

Our system of giving outside aid is as follows: To the great majority of cases we furnish a $2 order of provisions from the farm. That order consists of the following articles: 20 pounds of Haxall flour, peck of potatoes, and 3 pounds of boneless fish, 3 pounds of salt pork, 6 pounds of fresh

beef, 5 pounds of granulated sugar, 2 quarts of beans, 4 pounds of oatmeal, 3 pounds of rice, and half a pound of tea. With this order is sent $1 worth of wood. In winter the same provision order is sent with the fuel order changed to 50 cents worth of wood and $1 worth of coal.

In cases of sickness where the applicants need other necessities than the above, a $3 order on a grocery store is given. The number of the last named orders is not many, and by far the first mentioned includes the bulk of the business. This order we calculate to furnish but once a month but in some cases we do send it twice a month. Cash is given in but as few cases as possible. It generally goes to old people or to some worthy widow who is struggling along with a large family of helpless children. The dispensing of cash is not generally favored and it is my belief that only in extreme cases should it be given. The amount we have expended for clothing has been comparatively small for a city of Lowell's size.

Considering the size of our city and the condition of its people I am of the opinion that we are meeting with a fair degree of success in the caring of our poor on the outside. Extreme cases are bound to occur at intervals, but as a general thing we have been able to prevent many of them. Of course I don't mean to assert that we can prevent or have put an end to the squalor, misery and poverty in the city. That they have existed in the past, do exist today, and

will exist in the future is well known and firmly believed by me, and no body of Overseers or their agents can eradicate them. It might be news to many of the residents of our city to know that there are many families in this city who never dream of such a thing as regular meal hours. To them cheerful home surroundings are things unknown and their constant fight from the cradle to the grave is with poverty and its attending evils. Small wonder is it that drunkenness is so common, as it is undoubtedly a fact that while drunkenness is the cause of much poverty, poverty on the other hand is the cause of much drunkenness. It is with this class of people, to whom pauperism is for the most part an inheritance, that the pauper officials have to deal. How best to handle them is a problem that experience, and experience only, teaches. Sentimentality soon takes flight in dealing with them and the dispensing of aid becomes a cold, calculating business problem.

Organized efforts are, to my mind, the only way to contend with the evil. Individual generosity is frequently misplaced and a large per cent. of it goes to the unworthy. In our office we take, and keep on file, a complete history of each applicant for any kind of assistance and always have it to refer to. Actual want appeals to every true man or woman and the natural impulse is to help it at once. But the great difficulty is that the help given does not always alleviate the sufferings, but goes to encourage the recip-

ient to stay as he is without stimulating him to make an effort to better his condition. All aid given should be given intelligently so that the giver can know that he has performed a worthy charity.

The number of charitable organizations engaged in active work in this city is, unhappily, too few. As few as they are, they are constantly brought to a stand still on account of lack of funds.

I would most respectfully suggest to all who are engaged in the dispensing of aid, either as an individual, or as one of a society or club, that they work in harmony with this office. Our books are always open for their inspection, and our histories can be seen at any time. By this plan, we can see to it that many who receive aid from the city and from private charities also, are cut off from receiving more than their actual needs. The evil of working apart is shown by the experience that a certain charitable church organization had last year; the ladies of the society, by dint of hard work, got together considerable clothing which they distributed indiscriminately to the poor in the neighborhood; in less than two weeks the greater part of the clothing so distributed found its way to the pawn shops and the money realized became a source of evil rather than a blessing. I merely mention this fact to show the necessity of organized effort. To assure those good-meaning people that we have every desire to assist them in their work, of making their limited funds produc-

tive of the greatest amount of good. It is for our mutual benefit that we work co-operatively. Unless one is very persistent in the work of giving charity the impositions his efforts will be met with will drive him from the field. The frauds practised by the unworthy injure the cause of the worthy, and it is for the purpose of reducing those frauds to the minimum, that a general understanding should exist between all giving aid.

INDIGENT AND NEGLECTED CHILDREN.

The care of this unfortunate class is a vexed question that is bothering the minds of the most able philanthropists of the day. The minor wards of today will be the men and women of tomorrow and whether they are to be dependents, or self-supporting members of society, is a query in which every one having the public welfare at heart is interested. The only way to check the pauper increase of the future is to train their children of today to be thrifty, industrious and self-assertive. The inhumanity of the parents drives a large number of these children yearly under the supervision of the Secretary. By law we are not allowed to keep children at the almshouse over sixty days at a time. The laws relative to the care and disposition of indigent and neglected children are numerous, all looking towards the one object, namely, to provide the child with the educational advantages and training that will enable him

to take his place among the self supporting of our communities. It is made compulsory on the part of the Overseers of the Poor to find homes either in private families or in institutions for them. During the year we have had 28 children supported in the following institutions: St. Peter's Orphan Asylum, Lowell, 15, remaining January 1, 1897, 10; City Orphan Asylum, Salem, eight, remaining January 1, 1897, seven; Lawrence Orphan Asylum, Lawrence, five, remaining January 1, 1897, five. The cost of supporting these children is $1.75 per week each, making a total cost for the year of $1,932.16. This does not include the cost of maintaining the children at the almshouse who are coming and going all the time. During the year I have placed out with families six children, each of whom has a good home and are no expense to the department. The total number of children admitted to the almshouse during the year were 86, of which 19 are remaining. These children are for the most part those of parents who have been committed to the workhouse or almshouse. The best method to care for the children is, as I said above, an important one. No Secretary wants to separate the children from their parents unless absolutely obliged to do so. Of course you will always find people who advocate that sort of thing, but when one gets right down to doing it, it is a very serious matter. The love of parents for

their children, and the love of children for their parents is not a question of condition or station in life, but reigns as supreme in the poor as in the rich. Human nature is the same the world over whether the heart beats under satin and broadcloth or under rags and tatters.

I am greatly in favor of the establishment of a home for the children under the management of this department. The home should be correctional and educational. The commitment of children to the almshouse, for no matter how long or how short a period, should not be permitted under any circumstances. At present it is impossible not to do so as we have no other place to commit them. These children born in poverty, oftimes in crime, are brought up in an atmosphere of iniquity, and the associations they make at the almshouse only goes to train them for lives of crime or inactivity. Pauperism and criminality are hereditary and the only way to abolish their baneful influences is by purifying the environments in which the child is reared. With such a home started here, we could care for all the children who are now inmates of the different asylums besides keeping all from the farm. We could put to the cost of maintaining such a home the amount that is yearly paid to the different institutions. This would be a large item in the cost of conducting it, and nobody could say that the amount necessary to add to this

would not be well invested when you take into consideration the great possibilities that are to be obtained. Erect such a home, gentlemen, surrounding it with all the comforts and brightness that will tend to remove the evil effects of institutionizing the child. Remove it from unhealthy influences and make it a home for our unfortunrte waifs in all that the word implies. This is not an improbable theory but is rather a very practicable suggestion. With such an institution the good in these waifs, which is now overshadowed by the bad, could be brought to the surface and our city would be the gainer in more manly men and more sturdy women.

SICK POOR.

The necessity of crowding into cheap tenements, where the living arrangements are of the poorest, necessarily causes a large amount of sickness. Our method of caring for those is the same as in former years. St. John's Hospital has been the recipient of the greater majority of cases. The other hospitals, the Lowell General and the Lowell Hospital, will also receive city patients at the same rate adopted some years ago by St. John's. That rate is $3.50 per week for city cases, $5 per week for patients having no settlements anywhere, consequently state cases, and $6 per week for cases settled in other cities and towns. This low rate has been the means of saving the city the expense of erecting and

maintaining a city hospital. During the year 218 patients have been treated at St. John's. Of these 139 were city cases and 79 were out of town cases, for whose support reimbursements will be received. The total expense was $4,589.50 of which $1,967.68 will be collected, leaving the net cost of supporting Lowell's cases at $2,621.82.

The city is in my opinion fortunate in its opportunities for caring for its maimed and sick. St. John's is open at any hour, day or night, for the reception of all who might be sent there. There is no discrimination of cases and all are treated alike. While the amount paid to the institution appears to be a large one, you must take from it the amount paid for the care of 11 old ladies, who are being supported there at a cost of $1.75 per week — an amount less than the per capita cost at the city farm. Add on to hospital authorities expenses, the labor and costs attending the ministrations to the unfortunates, who are brought in, the victims of accidents and die before the Secretary gets a history from them. All familiar with life in Lowell know that the number of such cases, in a year, is a large one, and when you are assured of the fact that every known remedy to science and skill is used in every case, you can readily see that the expense foots up to a large amount in a year. During the year the Board of Health officials saw fit to close up the

contagious wards in St. John's and if an epidemic of contagious diseases would break out now, the city would be in a bad way. The only hospital in this city where such cases could be received is the Lowell Hospital. This is a private institution and while the management of it have always shown the most kindly disposition to the city authorities, and doubtless will continue to do so, still they have not the facilities for handling a large number of contagious cases and our City Council will have to do something in this matter in the near future.

Of the other branches under my direct supervision I can only refer you to the statistical report attached. The large increase in the number of insane cases is significant and worthy of note. Last year the total number of insane supported at the different state asylums was 76 — this year it was 90. Last year we paid out under this head $8,713.36 of which $1,067.15 was collected, leaving the net cost to the city at $7,646.21. This year we paid $12,300.95 and collected $1,758.14, leaving the total cost to the city this year at $10,542.81, an increase of $2,896.60. At present we have 67 patients in the different state asylums some of whom, having been there over a year and being in a condition to be cared for at our asylum, will be transferred as soon as possible.

The amount paid to other cities and towns for

support of Lowell's poor found therein is less this year than last, a fact due to constant visits to all such and frequent removals to this city. During the year, with the business outlook so poor, I have deemed it advisable to furnish transportation to a large number of families to places out of the state. As their prospects did not seem to be very good for becoming self-supporting I considered it cheaper to advance a little on railroad fares and remove them from our relief expense. As we are not accountable for their support out of the state, it is sometimes advisable to send them away but the only drawback there is to so doing is the fact that many of them return.

The total cost of the entire department—including all branches of the department—was $95,865.22 as against $95,494.12 last year. When the great increase in the number of people aided both in the offices and at the farm is taken into consideration, the showing is certainly a good one.

The only recommendations I can make in the conducting of the affairs of the department is in recommending an entire separation from the indoor and outdoor branches. I would have each working independently of the other. The different branches of the outdoor aid department I favor centralizing in the city. I am now, as I was last year, a firm believer in the establishment of a city store, and I know of no better location than the Board's land at the corner of Broadway and

Fletcher street. I also favor the erection of a tramp's dormitory and the re-location of the wood yard there. That the wood yard as conducted before was an expensive luxury I do not deny, but that was the fault not of last year's management nor of the year before, but of an iniquitous system that extended years back. The wood yard properly conducted can not only be self supporting but can be run at a profit. For I am in favor of making all tramps and applicants for aid do all the work there, and ot going into the market to sell the wood. The wood yard has been run very cheaply this year, but to my mind it can be run just as cheap in the city, with the accommodations for doing business increased one hundred fold. There is ample room at the yard to centralize the department's out door branches and I think it for the best interests of all to do so.

DISPENSARY.

The dispensary report is as follows, viz: Number of prescriptions filled, 4,428. Number of certifiicates from office for medical aid and attendance at dispenserary, 826, averaging about 69 a month, but many coming six months on one certificate. Number of State cases treated, 220. Number of cases having a settlement in some city or town within the state, 50. Number of cases treated having a settlement in the city, 556. Number of cases treated outside the dispensary by the district physicians, 623. Amount

billed to cities and towns within the state for medicine only, $86.95. Amount billed to cities and towns for physicians' attendance, $269.72.

AMBULANCE.

The ambulance has made 956 trips this year, of this number 458 were sick calls, patients being taken either to or from the hospitals, 324 were accident calls, 116 were in response to fire alarms, and 58, ambulance called but not used. In '94 the ambulance made 636 trips; in '95, 774 trips; in '96, 956 trips; a total increase of 320 trips, thereby proving that our ambulance is an actual necessity. It is to the honor of the department that such a blessing was bestowed upon the afflicted and injured. We are in honor bound to keep up its equipment in the very best manner; with this end in view a third one has been ordered, and the original number one ambulance will be held as a spare one, and in the winter months will be equipped with runners.

In conclusion I wish to return my sincere thanks to Supt. and Mrs. Pinder for the many kindnesses they have shown me in the discharge of my duties. I also desire to publicly congratulate them for the excellent manner in which they have conducted the affairs of the institution, calling your special attention to the words of praise bestowed upon them by the State Inspector.

To the chairman and members of the Board, I extend

my hearty thanks and owe whatever measure of success that has rewarded my efforts, to their hearty co-operation at all times.

Respectfully submitted,

MARTIN J. COURTNEY,

Secretary.

STATISTICAL REPORT.

OUT DOOR AID.

CITY OF LOWELL CASES.

	Wood.	Coal.	Provisions.	Orders on Stores.
From Dec. 21, 1895, to Jan. 1, 1897	$39.01	$68.00	$128.27	$48.00
January	160.02	300.97	585.87	99.00
February	160.42	294.76	588.45	99.25
March	163.51	288.96	590.95	97.50
April	252.47	.....	484.87	78.00
May	229.50	.....	450.98	77.25
June	205.48	.....	396.94	73.00
July	207.67	.....	405.32	82.00
August	204.15	.....	402.28	65.00
September	221.30	.....	428.54	85.00
October	266.27	.....	514.20	73.25
November	273.02	1.00	529.01	82.75
December 20, 1896	115.97	211.90	425.78	55.00
	$2,498.79	$1,165.59	$5,931,46	$1,015.00

OUT OF TOWN CASES.

	Wood.	Coal.	Provisions.	Orders on Stores.
From Dec. 21, 1895, to Jan. 1, 1897	$5.99	$12.00	$23.73	$8.00
January	43.48	81.03	166.13	15.00
February	39.58	74.24	150.55	15.00
March	46 49	84.04	168.05	12.50
April	63.53	.....	127.13	6.00
May	37.50	.....	77.02	9.00
June	36.52	.....	73.06	20.50
July	21.33	.....	42.68	12.50
August	21.85	.....	45.72	30.00
September	30.70	.....	63.46	8.50
October	54.73	.....	109.80	14.50
November	43.48	.....	90.99	7.00
December 20, 1896	22.03	42.60	86.22	6.50
	$467.21	$293.91	$1,224.54	$165.00

Total out door aid cost $12,761.50

Less out of town cases 2,150.66

Total cost alding Lowell's poor by out door relief $10,610.84

AMOUNT PAID TO INSANE HOSPITALS.

	Number within the year.	Remaining Jan. 1, 1897.	Amount paid.
Worcester L. H	49	37	$6,637.55
Worcester I. H	3	3	509.78
Danvers	16	12	2,133.38
Westboro	8	6	1,055.34
Taunton	1	..	135.17
Medfield	4	3	199.60
Northampton	1	..	93
State farm	5	3	590.80
Tewksbury	4	3	1,038.40
	90	67	$12,300.95

Amount reimbursed on account of insane patients $1,758.14

NUMBER OF FAMILIES AIDED IN 1896.

	Families.	Males.	Females.	Total.
Lowell cases	496	732	995	1,727
State cases	197	356	355	711
City and town	49	82	113	195
	742	1,170	1,463	2,633

Amounts paid on account of Lowell cases in other cities and towns..$2,098.41
Amounts paid for Lowell sick in out of town hospitals including those in Tewksbury A. H.....$1,272.02
Amount paid in cash allowances, for city and other cases.....$2,134 05

HOSPITALS AND ASYLUMS.

	Number within the year.	Amount paid.	Remaining Jan. 1, 1897.
St. John's hospital, (city cases)	139	$2,621.68	16
(state cases)	79	1,967.82	5
Lowell hospital	3	71.14	
Lowell General hospital	1	8.57	
St. Peter's Orphan asylum	15	863.16	10
Salem Orphan asylum	8	679.26	5
Lawrence Orphan asylum	5	390.00	5
Dipsomania home	1	51.54	
State alms house	15	333.80	3
Feeble minded home	3	424.34	3
Hospitals in cities	22	922.87	1
Children's hospital	1	34.75	

RECAPITULATION.

RECEIPTS.

Appropriation	$65,000.00	
Transfers	25,000.00	
Receipts	10,611.82	
Total		$100,611.82

EXPENDITURES.

Total expenditures	$95,862.22	
Transfer to roads and bridges	2,000.00	
Balance on hand Jan. 1, 1897	2,749.60	
Total		$100,611.82

REPORT

OF

INSTITUTIONS AT CITY FARM,

LOWELL, MASS.,

FOR THE YEAR

1896.

SUPERINTENDENT'S REPORT.

Office of the Superintendent, City Farm.

Lowell, Mass., Dec. 20, 1896.

To the Board of Overseers of the Poor:

Gentlemen: — I have the honor to present herewith my annual report as Superintendent for the year ending Dec. 20, 1896:

ALMSHOUSE AND WORKHOUSE.

The year shows a marked increase in the number of inmates over previous years, and also an increase in the number of provision orders delivered for out-door relief.

The smallest number of inmates at any one time was 364 on May 2, against 325 as the smallest for 1895, on May 20.

The largest number of inmates was 441 on September 25. The largest number in 1895 was 399 on January 1.

In 1896 there were delivered 3528 provision orders, amounting to $7159.00. This is 603 orders, amounting to $1309.00, over the year 1895.

WOOD YARD.

On February 1 the wood yard was transferred from Broadway to the Farm. The number of employes was reduced from seven to two, and the pay roll from $87.00 to $18.36 per week.

Early in the fall, the need of a suitable tramp house became apparent. From the first of September to the twentieth of December, 799 were cared for. They were given supper, lodging and breakfast, and in return were required to saw one foot of wood, or split a like amount. The largest number on any one night was 23 on December 14.

During the severe weather of the winter months, an extra team is required to deliver all orders, and there should be two new horses and a new team for this department the coming year.

IMPROVEMENTS DURING THE YEAR FROM SPECIAL APPROPRIATION.

The purchase of the Jenness land.

The erection of the dead-house, which is of brick, one story in height. It is twenty-two feet square inside, has cement floor, and has no windows in the sidewalls.

The rebuilding of the 39 brick air shafts on the women's and men's buildings.

The addition of the new office gives a front office 14x19 feet and a board room 13x19 feet. Both are finished in Southern pine and stamped

metal ceilings. The desks, tables and chairs are of oak.

The old kitchen bakery and engine room have been removed, and in their place is one room 23x56 feet, sheathed in Southern pine. It was intended to have a tile floor and to add two or three steam kettles to the three already in use, also to have a tea and coffee urn that would hold sixty-five gallons, but at present no work is being done.

The bakery and engine room have been placed in the basement. The present oven will hold bread from three barrels of flour at one baking.

A Telephone system connects the office with the different departments of the institution.

The Superintendent's house has been furnished and carpeted.

Much new piping and plumbing have been added.

REPAIRS FROM REGULAR APPROPRIATION:

Barns, sheds and other out-buildings painted.

North wing of piggery torn out, cement floor laid and new pens built.

Superintendent's house painted, papered and whitened.

Ventilators on men's hospital repaired.

New sewers laid in basement of women's hospital and insane building.

Brick floor relaid in women's hospital.

Summer house and arbor built in insane men's yard.

Concrete walk laid from Chelmsford Street to the institution, and new walks put in yards.

Coal bin at side track rebuilt. Wood-shed built at wood yard, and house that was at rifle range moved to wood yard.

The men's old hospital building was torn down, and yard graded, giving more room and better light and ventilation to men's building.

The women's pauper, prisoner, hospital and insane wards, laundry, nursery, men's hospital, insane, pauper and prisoner wards have been thoroughly painted and whitened.

IMPROVEMENTS AND REPAIRS SUGGESTED.

That a 90 H. P. boiler, similar to the one now in use, be added to the steam plant in place of the two 35 H. P. ones which have been in use for a good many years.

A suitable coal shed or elevator.

A dining room for the women's hospital which is removed from the sleeping rooms; also better ventilation, bath and sanitary arrangements:

Additional bath tubs for the women's building.

That the main piggery building, which is very old, be rebuilt, and that the south wing be built upon.

That a new stock of cows and pigs be purchased.

FARM PRODUCTS

More attention was given to crops that would be of use to the institution than to market garden sales. The season was fairly good. Potatoes were poor, but hay and forage crops were good.

The following list does not include what was sold :

English hay,	60	tons
Rowen,	6.4	tons
Meadow hay,	34.6	tons
Oat feed,	17.9	tons
Rye straw,	7.2	tons
Corn fodder,	10	tons
Ensilage,	15	tons
Corn stalks,	40	tons
Mangles,	10	tons
Squash,	12	tons
Apples,	190	barrels
Beets,	180	bushels
Cabbage,	11,000	heads
Celery,	2,500	heads
Carrots,	6,970	pounds
Cucumbers,	10	bushels
Cider,	2,400	gallons
Green corn,	65	barrels
Turnips,	260	bushels
Onions,	125	bushels
Pop corn,	35	bushels
Potatoes,	110	bushels
Tomatoes,	30	bushels
Green peas,	12	bushels
String beans,	15	bushels

Lettuce,	75 dozen
Melons,	3 barrels
Pork killed,	7 tons
Rye,	
Beans,	
Strawberries,	5 crates
Currants,	2 crates
Plums,	5 bushels

In the accompanying statistical report you will find the details covering the inmates and expenses for the year.

I wish to thank the physicians and the chaplain for their attentions during the year, also the officers and matrons for the faithful manner in which their duties have been performed.

Thanking you for your courtesies and continued confidence, I remain,

Very respectfully,

ALBERT PINDER,

Superintendent.

STATISTICAL REPORT

Year Ending December 20th, 1896.

ALMSHOUSE.

	Males.	Females.	Total.
Remaining Dec. 20, 1895	111	184	295
Admitted during year, including births	304	260	564
Discharged during year, including deaths	269	230	499
Supported during year	415	444	859
Births	5	3	8
Deaths	36	32	68
Daily average			328
Remaining Dec. 20, 1896	146	214	360
Tramps, Sept. 1. to Dec. 21			799

WORKHOUSE.

	Males.	Females.	Total.
Remaining Dec. 20, 1895	40	47	87
Committed	152	112	264
Whole number	192	159	351
Daily average	38	40	78
Discharged	155	127	282
Absconded	10		
Remaining Dec. 20, 1896	27	32	59

SUPPORTED DURING THE YEAR.

	Males.	Females.	Total.
Almshouse	415	444	859
Workhouse	192	159	351
Total	607	603	1210

OFFENCES FOR WHICH COMMITTED TO WORKHOUSE.

			Total.
Unlawfully exposing and selling liquor			1
Larceny			6
Vagrancy			8
Common drunkards			9
Drunkenness			327
			351

REASONS OF DISCHARGE FROM WORKHOUSE.

Died			1
Fines paid			13
Pardoned			51
Served full time			217
Total			282
Absconded			10
Total			292

INSANE.

	Males.	Females.	Total.
Remaining Dec. 20, 1895	33	68	101
Admitted	15	13	28
Discharged	18	7	25
Whole number supported	48	81	129
Remaining Dec. 20, 1896	30	74	104
Daily average	31	71	102

WOOD YARD.

Feb. 1, 1896, to Dec. 20, 1896.

Expenses	$2801.56
Pay roll	922.32
Board of two men and two horses	592.00
799 Tramps	115.85
Gross expenses	$4435.73
Delivered to outside poor 3160 orders amounting to	$3809.50
Delivered to City departments	86½ cords pine
Delivered to City departmens	50½ cords hard
Delivered to City departments	11½ cords mixed
Delivered to City departments	3 tons coal
Amounting to	$810.35
Wood on hand	115 cords pine
Wood on hand	190 cords hard
Coal on hand	132 tons stove

FINANCIAL REPORT.

Dec. 20, 1885, to Dec. 20, 1896.

Expenses from Dec. 20, 1895, to Dec. 20, 1896		$44,612.37
Pay roll from Dec. 20, 1895, to Dec. 20, 1896		10,235.81
Gross expenses		$54,848.18
3528 provision orders	$ 7159.00	
Receipts from sundry person's board	1135.18	
Receipts from farm products	973.46	
Board of wood yard men and horses	592.00	
Coal, provisions, etc., on hand Dec. 20, 1896	4733.26	
799 tramps for wood yard	119.83	
		$14,712.75
Running expenses for the year		$40,135.43
Average persons supported weekly		428
Weekly cost per capita		$1.80
Yearly cost per capita		$93.77

APPRAISAL OF PERSONAL PROPERTY.

March, 1892	$30,793.30
January, 1896	17,938.31
December, 1896	26,747.22

ANNUAL REPORT

OF THE

Births, Marriages and Deaths

OF THE

CITY OF LOWELL, MASS.,

FOR THE YEAR 1896.

LOWELL:
PRESS OF THE UNION PRINTING CO.
1897.

CITY OF LOWELL.

In Board of Aldermen, April, 13, 1897.

Received and Ordered on file.

GIRARD P. DADMAN,

City Clerk.

In Common Council, April 20, 1897.

Received and ordered on file, in concurrence.

FRANK N. OWEN,

Clerk.

REPORT.

City of Lowell,
City Clerk's Office, March, 1897.

To the Honorable, the Mayor and the City Council of the City of Lowell:

Gentlemen:—I herewith present the Annual Report of Births, Marriages and Deaths, as recorded in the City Clerk's office for the year 1896.

The total number of births returned and recorded for the year 1896 was 2805. Of these, forty-eight, 29 males and 19 females, were returned and recorded as having been born out of Lowell, their parents being residents of Lowell and temporarily residing in the city or town where the birth occurred.

Twenty-four, 12 males and 12 females, were returned and recorded as born of parents temporarily residing in Lowell.

BIRTHS BY WARDS.

WARDS.	One.	Two.	Three.	Four.	Five.	Six.	Seven.	Eight.	Nine.	Total.
Whole number	183	397	250	270	364	340	556	175	196	2731
Males	83	210	130	141	176	178	269	97	98	1382
Ward unknown, 2; male 1, female 1										
Females	100	187	120	129	188	162	287	78	75	1349
American parents	35	26	54	49	67	48	41	75	49	444
Foreign parents	115	300	155	168	237	211	448	63	111	1808
American father, foreign mother	18	35	22	28	35	45	33	16	14	246
Foreign father, American mother	14	36	17	25	24	36	34	20	22	228
Parents' nationality unknown	1		2		1			1		5
Twins	4	4		2	7	3	3		1	24
Illegitimate	1		2	3	2			2	1	11
Increase over 1895										33

MARRIAGES.

Nine hundred forty-three intentions of marriage were issued, and the same number recorded in 1896,—81 less than in 1895. Of the above, 854 were solemnized in Lowell, and 89 elsewhere.

Number of Marriages in each month in 1896:

January,	78	May,	56	September,	99
February,	69	June,	115	October,	95
March,	30	July,	62	November,	107
April,	109	August,	65	December,	58

Nationality of contracting parties:

	GROOMS.	BRIDES.
United States,	384	390
Canada,	220	222
Ireland,	133	139
England,	68	63

Scotland,	18	23
British Provinces,	48	44
Azores,	12	13
Sweden,	11	13
Other Races,	49	36

Oldest couple married, groom 82, bride 62; youngest couple married, groom 19, bride 15; oldest person, 82; youngest person, 15; grooms under 21 years, 52; brides under 18 years, 26.

DEATHS.

The total number of deaths returned and recorded in the City Clerk's office for the year 1896 was 1,922; of these, 24 died in other cities or towns within the state, making the number of deaths returned and recorded as having occurred in Lowell, 1898.

Males, 929, Females, 993. Increase over 1895,	22
Number of deaths between 80 and 90 years of age,	61
Number of deaths over 90 years of age,	16
Stillborn,	158

Statistics in greater detail relating to deaths may be found in the Annual report of the Board of Health for the year 1896.

The attention of the City Council is particularly called to the immediate necessity of providing means for the compiling of condensed and card indexes for Births, Marriages and Deaths.

Since 1876 no consolidation of the several indexes has been made for the convenience of the public who daily apply for information in these

matters; it would seem that measures should be taken to furnish the information required by the most compact and up-to-date methods. The preparation of indexes in this manner will require a long time, and the expenditure of money, and I am of the opinion that it would be an expenditure in which the taxpayers would gladly acquiesce, and the result of which would, at least in this line, place our city on par, if not in advance, of any municipality of the Commonwealth.

Copies of the records of Births, Marriages and Deaths have been transmitted to the Secretary of the Commonwealth as required by the Statutes.

Respectfully submitted,

GIRARD P. DADMAN,

City Clerk.

NINETEENTH

ANNUAL REPORT

OF THE

BOARD OF HEALTH

OF THE

CITY OF LOWELL

FOR THE YEAR 1896.

LOWELL, MASS.:
LOWELL SUN PRINT: SUN BUILDING.
1897.

BOARD OF HEALTH.

1896.

James B. Field, M. D., *Chairman.*

James Bayles, *Secretary.*

Omer P. Porter, *City Physician.*

HEALTH DEPARTMENT OFFICERS.

H. H. Knapp, *Agent.*

Fred A. Bates, *Chief Inspector.*

Stephen Garrity, *Inspector of Plumbing.*

Francis J. O'Hare, } *General Inspectors.*
William H. Connors, }

Lulu F. Lyon, *Registrar*

TABLE OF CONTENTS.

REPORT.

LOWELL, MASS, January 31, 1897.

To the Honorable City Council:

The Board of Health herewith submits its nineteenth annual report, covering the year 1896.

MEMBERSHIP AND ORGANIZATION.

On January 1, 1896, the Board consisted of James Bayles, whose term had expired in February, 1895, and who was holding over under Chapter 174 of the Acts of 1894; of James B. Field, M. D., whose term was to expire in February, 1896, and of O. P. Porter, M. D., who was a member of the Board by virtue of his office as City Physician, which did not expire until 1897.

From 1878 up to this time the members of the Board had been appointed under Chapter 80, Section 8, of the Public Statutes, which provided

that the Board should consist of two appointed members with two-year terms expiring in alternate years, and of a third member, *ex-officio*, the City Physician, whose term of office was three years.

In 1895, however, the Legislature passed an act intending to provide for a more uniform system in the appointment of the boards of health throughout the State. This act reads as follows:

AN ACT RELATIVE TO BOARDS OF HEALTH IN CITIES.

Be it enacted, etc., as follows:

SECTION 1. In each city, except Boston, there shall be appointed by the mayor, subject to confirmation or rejection by the board of aldermen, except where other provision is made in the city charter, a board of health, consisting of three members, who shall hold office for a term of three years, from the first Monday in February next succeeding their appointment, one of whom shall be a doctor of medicine. They shall not be members of the city council. If such boards are not already in existence, appointments shall be made as herein provided of three persons, one for the term of one year, one for the term of two years, and one for the term of three years; and thereafter one member shall be appointed annually for the term of three years from the first Monday in February next succeeding such appointment. Members of existing boards shall continue to hold office until the appointment of a new board in accordance with the provisions of this act. All vacancies shall be filled by appointment for the unexpired term as above provided. Each member so

appointed shall be subject to removal by the mayor for cause and shall receive such compensation as the city council shall from time to time determine.

SEC. 2. Section eight of Chapter eighty of the Public Statutes is hereby repealed.

SEC. 3. This act shall take effect upon its passage.

Approved April 30, 1895.

The evident purpose of this Act was to establish boards of health without any *ex-officio* member, but with three appointed members having terms of three years each, the terms at the first appointment, however, being arranged respectively for one, two, and three years, so that hereafter but one member of the Board should retire from office each year.

The foregoing construction was put upon the act by nearly every city of the Commonwealth, but evidently such an interpretation did not meet the exigencies of the case in Lowell; therefore the Mayor obtained from the City Solicitor an opinion which was followed by the appointment of Thomas F. Harrington, M. D., for a term of three years. The appointment did not state whom Doctor Harrington was to succeed, but at that time it was generally assumed that he succeeded the City Physician, Doctor Porter.

On the first Monday in February, Doctor Field and Doctor Harrington met for the purpose of

organizing, Mr. Bayles being absent from the city by reason of ill health. The organization of 1895 was continued, with Doctor Field as chairman and H. H. Knapp as Agent.

Upon May 8th, Mr. Bayles was again able to be present. At that meeting City Physician Porter was also present. Doctor Porter stated that the appointment of Doctor Harrington did not specify which of the three old members he was to succeed, and that good legal authorities had stated that the appointment of one member did not constitute a Board, as contemplated under the act. Therefore, the chairman of the Board was directed, by vote, to send a letter to His Honor the Mayor, asking him to secure the opinion of the City Solicitor as to the status of the membership of the Board. To the letter sent by this vote to the Mayor, no reply was received.

At the regular meeting of the Board thereafter, there were generally four men present. Obviously, four men could not legally constitute a Board of three members, so no business was transacted. After waiting about two months for an opinion from the City Solicitor, Mr. Bayles and Doctor Field met twice without premeditation and transacted some necessary business. His Honor thereupon summoned Doctor Field and Mr. Bayles to state why they held meetings without notifying the third member. Messrs. Field and Bayles made

reply that they had been waiting patiently two months, hoping to hear the City Solicitor's opinion as to who was the third member of the Board, and they did not feel empowered to settle the status of a member whose qualifications were questioned. His Honor then read City Solicitor Qua's opinion of January 21st, and stated that under it Doctor Harrington was a member of the Board, and that Doctor Porter's remedy was in the courts. Accordingly, upon July 14th, Doctor Field and Mr. Bayles held a meeting with Doctor Harrington and a statement of the above interview with the Mayor was made and recorded upon the books.

Upon August 8th, City Solicitor Qua sent the opinion asked for to the Mayor, sustaining the proposition that the appointment of Doctor Harrington was not the appointment of a new Board within the meaning of the law, and that therefore the Board at present consisted of the old members.

This opinion appeared promptly in the papers, but was never transmitted to the Board. The City Auditor left Doctor Harrington's name off the salary roll. At the next meeting afterwards, the chairman stated that under the ruling of the City Solicitor, it would be his duty to recognize Doctor Porter and not Doctor Harrington. Other members of the Board, however, claimed that as this opinion was only read in the newspapers, it was not officially before the Board and could not be acted

upon. Accordingly, upon September 22d, the opinion of City Solicitor Qua, signed with his name, was read before all interested parties. The point was raised by one that this was a copy and not the original opinion received by the Mayor. Another did not think that the Board could in courtesy recognize an opinion which was not transmitted by the Mayor. Again nothing was done.

On September 25th, the four claimants for membership of the Board met and requested the chairman to notify the Mayor of their dilemma, and to request that he would transmit to the Board the City Solicitor's opinion. In reply to a letter thus sent, the Mayor wrote that there were some points raised by the City Solicitor's opinion upon which he wished further elucidation, and that when he received a reply from the City Solicitor upon the points raised, he would transmit the opinion to the Board. The Board never received this opinion, but on October 8th the City Solicitor answered His Honor's queries, published in the Lowell papers of that date, and closed the correspondence. No action was taken by the Mayor upon the two remaining appointments for 1896.

The only evidence the Board has in determining the membership for 1896 is a signed copy of his letter of October 8th, re-affirming his opinion of August 8th, and verbal communications with the City Solicitor. This evidence establishes

his opinion that the Board for 1896 consisted of James B. Field, James Bayles, and Omer P. Porter.

While the membership of the Board of 1896 has been a matter of doubt, thereby placing the members in a very unpleasant and embarrassing position, and preventing the taking up of any new line of important action, it has not caused any relaxation of endeavor by the employees of the department, and the organization made years ago and constantly improved and perfected yearly, has taken care of an increased amount of ashes and swill, made a larger number of inspections, kept the deaths from contagious diseases and the death rate down to a very low figure, while reducing the expense of the department in 1896 by hundreds of dollars.

VAULTS DISCONTINUED AND FILLED WITH EARTH BY ORDER OF THE BOARD OF HEALTH DURING 1896.

		Ward.	No.
28	Bassett street	4	1
883	Central street	4	1
5	Merrill's court	5	1
7	rear 78 Whipple street	4	1
38	and 46 Swift street	4	1
42	and rear Pine Hill street	4	1
60	Thorndike street	4	1
90	Union street	4	1
15	and 17 Watson street	4	1
84	Whipple st	4	1
48	and 50 Whipple street	4	2

	Ward.	No
44 Whipple street	4	1
12 Winter street	4	1
84 South Highland street	4	1
100 South Highland street	4	1
88 South Highland street	4	1
198 South street	4	1
188 South street	4	1
192 South street	4	1
31 Watson street	4	1
206 South street	4	1
208 South street	4	1
433 Gorham street	4	1
259 Gorham street	4	1
273 Gorham street	4	1
283 Gorham street	4	1
461, 463, and 467 and 2 rear Gorham street	4	1
547 Gorham street	4	1
75 Union street	4	1
73 Union street	4	1
12 Keene street	4	1
16 Keene street	4	1
20 Keene street	4	1
22 Keene street	4	1
42 and 2 rear Keene street	4	1
23 and 25 Keene street	4	1
37 Keene street	4	1
509, 511, 515, and 517 Market street	2	1
14 Cedar street	4	1
20 Cedar street	4	1
44 Cedar street	4	1
10 Cedar street	4	1
46 Blossom street	8	1
28 Blossom street	8	1

	Ward.	No.
London (Primary School)	8	1
547 Central street	5	1
160 South street	4	1
20 Linden street	5	1
81 and 85 Union street	4	1
38, 40 and 42 Charles street	5	1
93 and 95 Kinsman street	4	1
13 Union street	5	1
9 Union street	5	1
48 Lane street	3	1
328 and 332 Middlesex street	1	1
316 and 320 Middlesex street	1	1
780 Gorham street	4	1
331 and 1 and 2 rear Lakeview avenue	6	1
393 Lincoln street	8	1
386 and 388 Adams street	2	1
411 and 413 Adams street	2	1
429 and 431 Adams street	2	1
417, 419 and 421 Adams street	2	1
218 Adams street	2	1
368 Adams street	2	1
364 Adams street	2	1
338 Adams street	2	1
318 Adams street	2	1
310 and rear Adams street	2	1
296, 298 and rear Adams street	2	1
290 Adams street	2	1
271 Adams street	2	1
110 Congress street	8	1
83 Powell street	8	1
304 and rear Adams street	2	1
19 Marshall street	3	2
28 Marshall street	3	1

		Ward.	No.
36	Marshall street	3	1
425	School street	3	1
126	Andrews street	9	1
124	Andrews street	9	1
25	Lawrence-street court	5	1
49	North street	5	1
53	and rear North street	5	1
6	and 8 rear and 112 Charles street	5	2
169	Lawrence street	5	1
141	Lawrence street	5	1
33	North street	5	1
762	Lakeview avenue	6	1
37	North street	5	1
17	and 19 North street	5	1
26	North street	5	1
4	and rear Rogers street	5	1
420	Lawrence street	9	1
456	and 458 Lawrence street	9	1
424	Lawrence street	9	1
450	Lawrence street	9	1
452	Lawrence street	9	1
382	Lawrence street	5	1
396	and 398 Lawrence street	5	1
365	Lawrence street	5	1
38	Merrill street	9	1
380	Lawrence street	5	1
37	Merrill street	9	1
540	Lawrence street	9	1
6	Joiners' court	5	1
79	Plain street	8	1
546	and rear Lawrence street	9	1
35	and rear Agawam street	9	1
120	Agawam street	9	1

	Ward.	No.
10, 12, and 16 Agawam street	9	1
16 Otis street	9	1
60 Andrews street	9	1
101 Bourne street	9	1
796 Lawrence street	9	1
28 Moore street	9	1
37 Beech street	6	1
28 Manchester street	8	1
40 Manchester street	8	1
33 Green street	5	1
786 and 788 Lawrence street	9	2
85 West Fourth street	6	1
79 West Third street	6	1
139 Third street	6	1
17 Canada street	8	1
650 and 652 Broadway	7	1
39 Walnut street	4	1
37 Walnut street	4	1
114 School street	7	1
32 Walker street	7	1
332 Lawrence street	5	1
64 and 66 Rock street	7	1
15 Butterfield street	7	1
1002 Central street	4	1
67 Lamb street	7	1
18 Walker street	7	1
13 Dodge and 1, 2, 3, and 4 in rear	7	2
5 Dodge and 546 and 554 Suffolk street	7	1
48 and 50 Fenwick street	2	1
48 Chapel street	5	1
138 and 146 Fenwick street	2	4
314 and 318 Suffolk street	2	1
98 Fenwick street	2	1

	Ward.	No.
9 and 11 Cross street	2	1
31 Cross st	2	1
5 Chambers street	4	1
250 and 254 Suffolk street	2	1
24 Bassett street	4	1
82 Andrews street	9	1
340 Lincoln street	8	1
323 Lincoln street	8	1
32 Manchester street	8	1
36 Manchester street	8	1
1045 Gorham street	8	1
84 Maple street	8	1
94 Maple street	8	1
365 Lincoln street	8	1
360 Lincoln street	8	1
34 and 36 Walnut street	4	1
87 and 89 Jefferson street	2	1

VAULTS REMOVED IN 1896.

Ward 1	3
Ward 2	26
Ward 3	6
Ward 4	51
Ward 5	26
Ward 6	6
Ward 7	10
Ward 8	19
Ward 9	22
	169

NOTICES SENT FROM THE OFFICE TO ABATE THE FOLLOWING NUISANCES.

Water closets filthy	30
" " discontinued or sealed	8
" " untrapped	3
Filthy alleys and yards	206
" ash chutes	1
" barn cellars	2
" cellars	27
" cesspools	3
" privies	8
" pig cellar	1
" shed	1
" tenements	3
" public urinals	4
" woodwork around sinks	4
" woodwork around water closets	6
" yards	205
Broken water closet bowls	6
Rubbish in cellars	37
Basins discontinued or sealed	1
Bath tubs discontinued or sealed	1
Sinks discontinued or sealed	2
Damp cellars	2
Broken hopper cocks	7
Water in cellars	3
Broken ceilings	2
Defective drains	32
Open drains	36
Broken and leaky drains	8
Imperfect drainage	28
Removal of hens	2

Defective joints for soil and waste pipes	94
Improper material for soil and waste pipe	74
Junk shop	1
Manure piles	2
Old mattresses in cellar	7
Dilapidated privy	1
Defective plumbing	2
Removal of pigs	9
Untrapped sinks	378
Untrapped soda fountains	2
Untrapped cesspools	3
" urinals	1
" refrigerators	5
" basins	3
" wash trays	5
" corned beef tank	1
Leaky roofs	2
Defective sink wastes	12
Leaky " "	24
Clogged " "	4
Broken and cracked sinks	5
Leaky sink traps	5
Improperly trapped sinks	12
Dilapidated sink traps	1
Ventilated sink traps	4
Sink traps without covers	4
Unsealed traps	5
Broken urinals	2
Dilapidated vaults	2
Remove contents of vaults	51
Uncovered vaults	2
Reconstruct vault	1
Discontinued well	1
No water supply to tenants	5

Poor water supply to tenants	4
Overflowing dry wells	4
Leaky water pipes	11
" water closets	15
Water closets clogged	15
" " improperly ventilated	1
" " traps without cover	1
Improper location for stable	1
Tenements vacated	11
Connect premises with sewer	2
No water supply to water closets	25
Poor " " " " "	55
Permits given to Fay to clean vaults	437
" " " " " " dry wells	63
" " " " " " barn cellars	8
" " " Fox " " vaults	309
" " " " " " dry wells	3
" " " " " " barn cellars	1

There have been four convictions in the courts for failure to comply with the orders of the department and fines amounting to over six hundred dollars ($600.00) have been turned into the city and county treasury. Every one has felt the pressure of an unsatisfactory business year, and a larger number of householders than usual have asked and received the postponement of orders that called for an outlay that they could ill afford at the time, and expressed a willingness to gladly conform to the orders given them by the department upon the approach of better days.

DISPOSITION OF SWILL AND MARKET REFUSE FROM JANUARY 1 TO APRIL 18, 1896.

635	loads	swill	to	F. A. Fox, Dracut.
268	"	"	"	Thomas Varnum, Lowell.
32	"	"	"	Mills.
31	"	"	"	Tully.
20	"	"	"	Dunn.
13	"	"	"	Walker.
14	"	"	"	Richardson.
13	"	"	"	Connors.
13	"	"	"	Shedd.
12	"	"	"	Graves.
116	"	"	"	Sundry parties.
1167				

GARBAGE AND MARKET REFUSE BURNED AT CREMATOR FROM JANUARY 1 TO APRIL 18, 1896.

144 tons swill.		
87 mattresses.		
29 dogs.	10 tons coal at $4.50,	$ 45 00
8 hens.	Labor one man $2.00 per day,	192 00
6 cats.		
48 bundles rags.	Total cost for coal and labor,	$237 00

April 20, 1896, the cremator was put into full operation, and herewith follows a weekly statement of the amount burned from that date.

April 25,	84	tons	at	$0 86	per ton
May 2,	82	"		88	"
" 9,	85	"		90	"
" 16,	87	"		88	"
" 23,	85	"		90	"
" 30,	87	"		88	"
June 6,	94	"		82	"
" 13,	83	"		89	"
" 20,	87	"		88	"
" 27,	97	"		81	"
July 4,	86	"		85	"
" 11,	116	"		71	"
" 18,	113	"		73	"
" 25,	95	"		80	"
Aug. 1,	105	"		72	"
" 8,	97	"		74	"
" 15,	102	"		70	"
" 22,	105	"		68	"
" 29,	100	"		72	"
Sept. 5,	100	"		72	"
" 12,	100	"		71	"
" 19,	93	"		78	"
" 26,	100	"		80	"
Oct. 3,	99	"		76	"
" 10,	50	"		1 25	"
" 17,	65	"		90	"
" 24,	85	"		89	"
" 31,	88	"		86	"
Nov. 7,	82	"		94	"
" 14,	89	"		82	"
" 21,		cremator closed.			
" 21,	12	tons market refuse.			
" 28,	14	" " "			

Dec. 5, 13 tons market refuse.
" 12, 13 " " "
" 19, 11 " " "

TOTAL.

2810 tons swill and market refuse.
485 mattresses.
218 bundles rags.
155 dogs.
1 calf.
8 hens.
10 lounges.
34 cats.

LARGEST WEEK'S WORK.

Monday,	July	6,	1896.....	16,340	swill
"	"	6,	"	17,400	markets
Tuesday,	"	7,	"	26,365	swill
"	"	7,	"	16,600	markets
Wednesday,	"	8,	"	34,170	swill
"	"	8,	"	14,000	markets
Thursday,	"	9,	"	25,585	swill
"	"	9,	"	7,500	markets
Friday,	"	10,	"	27,715	swill
"	"	10,	"	13,900	markets
Saturday,	"	11,	"	23,375	swill
"	"	11,	"	9,450	markets
				232,400 = 116 tons.	

Eight dogs, eight bags rags, eight mattresses.

7 tons soft coal at $4.50	$31 50
5 " nut " " 4.65	23 25
Labor two men $2.00 and $2.25	27 75
	$82 50

116 tons at $0.71 per ton.

COST OF BURNING GARBAGE AT ENGLE CREMATOR, JANUARY 1, 1896, to DECEMBER 26, 1896.

January	$ 60 00	Coal	$1,506 89
February	60 00	Labor	1,198 40
March	60 00	Lease	150 00
April	134 50	Wood	43 09
May	699 37	Grates	29 58
June	515 58	Iron work	260 31
July	394 80	Sewer	106 25
August	357 46	Sundries	48 82
September	355 60		
October	455 59		
November	214 54		
December	35 90		
	$3,343 34		$3,343 34

Cost of burning garbage, 1894	$5,742 69
" " " " 1895	3,662 53
" " " " 1896	3,343 34

Saving in 1896 of $319.19.

Lowest week's cost per ton, 1894	$1 02
" " " " " 1895	81
" " " " " 1896	68

COLLECTION OF ASHES.

During the year 1896 thirty-three thousand three hundred eighty-nine (33,389) loads of ashes were removed from houses and stores to the various dumping grounds in use, at a cost for labor in collection of eleven thousand three hundred and eleven dollars and twenty-five cents, ($11,311.25) an increase of loads as compared with 1895 of 3,355 and an increase in cost of labor of $719.85.

January	3193	loads
February	2857	"
March	2984	"
April	3254	"
May	2790	"
June	2502	"
July	2456	"
August	2393	"
September	2402	"
October	2753	"
November	2629	"
December	3176	"
	33,389	loads

PLUMBING INSPECTION.

APPLICATIONS MADE, PERMITS GRANTED, AND PREMISES INSPECTED.

	New Buildings.	Old Buildings.
January	22	10
February	8	8
March	15	10

	Old Buildings.	New Buildings.
April	17	49
May	29	38
June	31	31
July	31	42
August	22	16
September	29	33
October	31	35
November	21	21
December	25	7
	281	300

Total of old and new applications, 581.

COMPLAINTS INVOLVING A CHANGE OF PLUMBING FIXTURES.

January	7
February	7
March	8
April	12
May	38
June	16
July	11
August	10
September	8
October	4
November	6
December	5
Total	132

HOUSE TO HOUSE INSPECTION.

COMPILATION OF INSPECTOR'S RETURNS JANUARY 1, 1896, TO JANUARY 1, 1897.

	Conners.	O'Hare.	Total.
Tenements	2285	1861	4146
Stores	171	133	304
Sinks	2608	2073	4681
Water closets	1981	1448	3429
Vaults	160	177	337
Dry wells	40	50	91
Bath tubs	301	225	526
Basins	381	250	631
Cellars	1191	1071	2262
Bar drainers	13	8	21
School houses	6	2	8
Yards	1191	837	2028
House drains	1190	837	2027
Soda fountains	4	5	9
Refrigerators	15	19	34
Urinals	21	41	62
Hen houses	53	27	80
Laundries	10	2	12
Pig pens	30	11	41
Wash trays	50	38	88
Churches	2	1	3
Ash chutes	10	4	14
Offices	132	16	148
Barns	94	121	215
Slop sinks		4	4
Halls		5	5

	Conners.	O'Hare.	Total.
Lodging houses		15	15
Washing machines		9	9
Hotels		4	4
Bakers		2	2

Two weeks in the spring and fall in cleaning up yards and about the same number of weeks to see that the notices sent for the same were complied with.

An almost complete inspection has been made on the following named streets: — Swift, Chase, Watson, Lawrence, Floyd, Mead, New, Lyon, Kinsman, Newhall, Crosby, Kidder, Prospect, Pine Hill, Irving, Chambers, Gorham street from Davis Corner to Fair Grounds, South street from Middlesex street to Summer street, Appleton, Davis, Winter, Summer street from South street to Thorndike, Highland, Burns, South Highland, Simpson Place, Thorndike, Chelmsford street from Thorndike to Plain, Hale, Railroad, Howard, Grand, Daly, Wilson, Cambridge, Madison, Congress, Robinson, Favor, Middlesex street from Tower's Corner to School street, King, Elliot, Pearl, Spring, Garnet, Bridge street from northerly end of Central Bridge to Sixth street, West Third, First, Second, Third, Read street from First to Sixth street, Fourth, Simpson, Durant, Vernon, Fremont, West Fourth, Albion, West Fifth, McIntire,

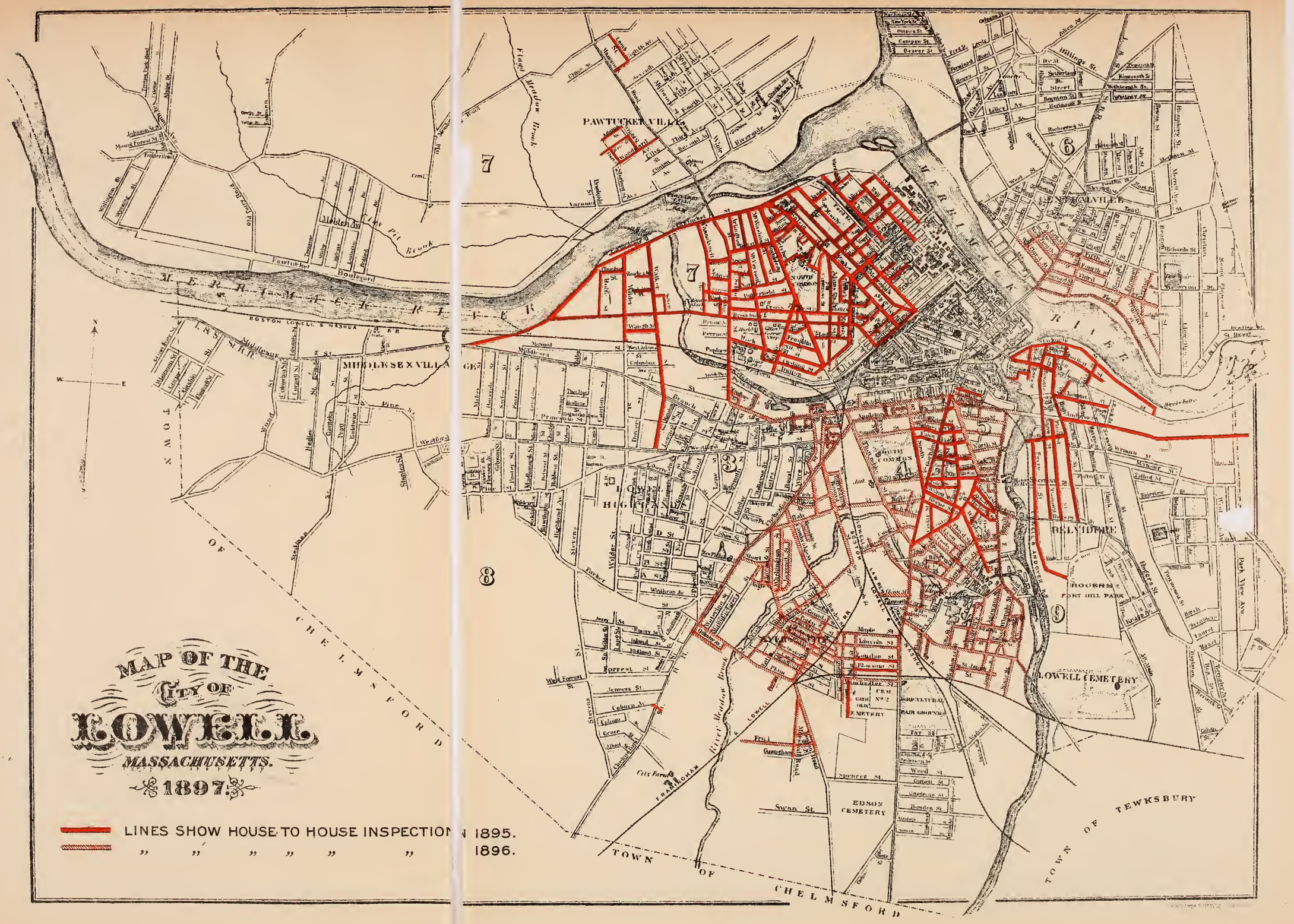
Middlesex place, Arch, Brewery court, Oak avenue, Woodbury, Green, George, Church, Tyler, Charles, Warren court, North, Cady, Ames, Richmond, Mill, Rogers, Merrill, Joiner's court, Clark's court, Andrews, Agawam, South Whipple, Greenwood, Griffin, Barrington, Randolph, Sidney, Crowley, St. James, Meadowcroft, Bourne, Otis, Moore, Whidden, East Bleachery, Carter, Livingston, Carter place, Plain, Olive, Manchester, Quebec, Maple, West, Lincoln, Angle, Manufactures, Short, Canada, Massasoit, Waldo, West London, West Manchester, Montreal, Eaton, Payton, Boston road, Mariner, Marshall road, Fruit, Tanner, Quimby avenue, Washington and Leverett street.

These streets comprise sections of wards one, three, four, five, eight and nine.

As will be seen from the plotted map on next page the most thickly populated tenement sections of the city have had during the last two years a thorough inspection, and we expect to have more time in 1897 to give closer attention to the exterior surroundings of the worst parts of the city, as they need constant attention to keep them in a healthy and presentable condition.

CONTAGIOUS DISEASE HOSPITAL.

Early in the year, the board made petition to the city council for a contagious disease hospital



MAP OF THE CITY OF LOWELL MASSACHUSETTS. 1897.

▬ LINES SHOW HOUSE TO HOUSE INSPECTION 1895.

▨ " " " " " " 1896.

as provided for in Chapter 511 of the Acts and Resolves of the Massachusetts legislature for 1894, but nothing came of it. There is only one contagious disease hospital in Lowell, and that is attached to the Lowell hospital and controlled by the corporations. It contains nine rooms and is a very good building, but it is expensive for general use. The city would derive great benefit if it had such a hospital, as at times its use is a necessity. It has been suggested that the city build contagious sections and attach them to St. John's hospital and the Lowell General hospital under an established fee. Patients would have a right to treatment there, and the cost would not be so great as it would be if the city had an independent hospital where physicians and nurses have to be provided.

THE DEPARTMENT STABLE.

The health department had hopes of a much needed stable this year when an appropriation was made. But it was vetoed by His Honor the Mayor, and there was talk of a loan being made, but nothing came of it. It has cost the department about a thousand dollars this year for the boarding of horses. It is a most unprofitable business. During the winter twenty of our horses are accommodated in the street department stable, but

they will have to be removed into open sheds as soon as their stalls are needed. It is very poor economy that does not make a department of stabling to be charged with the care of all the horses owned by the city.

SMALL-POX HOSPITAL.

The small-pox hospital has been cleansed and whitewashed, and is ready for use. A hot-water boiler has been attached, but no provision has been made for heating the building. During the last outbreak, it was difficult to keep the temperature of the rooms on the northerly side at 40 degrees Fahrenheit. That is too cold for a person in health. It is cruel for a person suffering from the loathsome disease.

CATTLE INSPECTION.

To the Board of Health, City of Lowell, Mass.

Gentlemen:—Since the first day of January, 1896, in my duties as inspector of animals and provisions,

I have sent to be rendered six horses affected with glanders and have released two suspected ones.

I have examined at slaughter houses six oxen, nine cows, one pig, and three calves, of which one ox and one pig were condemned.

I have identified and released from quarantine one hundred and six cows.

I have examined for tuberculosis or contagious diseases two bulls, one hundred and twenty-eight pigs, fifty-one cows, and four calves, of which I put nine cows in quarantine, four of which proved tuberculous and were shipped to Brighton, while five were released as sound.

Respectfully submitted,

W. A. SHERMAN, D. V. S., M. D.

Inspector Animals and Provisions.

ACT AND RESOLVE

PASSED BY THE

LEGISLATURE OF MASSACHUSETTS

During the session of 1896.

CHAPTER 418.

An act relative to bakeries and persons employed therein.

Be it enacted, etc., as follows:

SECTION 1. All buildings occupied as biscuit, bread, or cake bakeries shall be so drained and shall be provided with such a system of plumbing as shall conduce to the proper and healthful condition thereof.

SECT. 2. Every room used for the manufacture of flour or meal food products shall have, if deemed necessary by the authority vested with the enforcement of this act, an impermeable floor constructed of cement or of tiles laid in cement with an additional flooring of wood properly saturated with linseed oil. The side-walls and ceilings of such rooms shall be plastered or wainscoted, and, if required by said authority, shall be whitewashed at least once in three months. The furniture and utensils in such room shall be so arranged that the furniture and floor may at all times

be kept clean and in a proper and healthful sanitary condition.

SECT. 3. The manufactured flour or meal food products shall be kept in perfectly dry and airy rooms, so arranged that the floors, shelves, and other facilities for storing the same can be easily and perfectly cleaned.

SECT. 4. Every such bakery shall be provided with a proper wash-room and water closet or closets with ventilation, apart from the bakeroom or rooms where the manufacturing of such food products is conducted; and no water-closet, earth-closet, privy, or ash-pit shall be within or communicate directly with the bakeroom of any bakery.

SECT. 5. The sleeping places for the persons employed in a bakery shall be separate from the room or rooms where flour or meal food products are manufactured or stored.

SECT. 6. Any person who violates any of the provisions of this act or refuses to comply with any requirement of the authority vested with its enforcement, as provided herein, shall be guilty of a misdemeanor, and on conviction shall be punished by a fine of not less than twenty nor more than fifty dollars for a first offence, and for a second offence by a fine of not less than fifty nor more than one hundred dollars or by imprisonment for not more than ten days; and for a third offence by a fine of not less than two hundred and fifty dollars and by imprisonment for not more than thirty days, or both such fine and imprisonment.

SECT. 7. The owner, agent, or lessee of any property affected by the provisions of section one, two, or four of this act, shall, within sixty days' after service of notice requiring any alterations to be made in or upon such

premises, comply therewith. Such notice shall be in writing and may be served upon such owner, agent, or lessee, either personally or by mail; and a notice mailed to the last known address of such owner, agent, or lessee shall be deemed sufficient for the purpose of this act.

SECT. 8. The board of health of a city or town in which a bakery is situated or in which the business regulated by this act is carried on, shall enforce the provisions of this act and shall cause copies of the same to be printed and posted in all the bakeries and places in which such business is carried on within their respective jurisdictions.

(Approved May 19, 1896.)

The following list of buildings occupied as biscuit, bread or cake bakeries, have been examined with reference to the condition as expressed in the blank form below, filled in with answers from a personal visit made by our inspector of plumbing:

Location of building, Number,
Name of owner,
Name of lessee or tenant,
Number of rooms used for manufacture of flour or meal food products,
Number of rooms used for exhibition or sale of flour or meal food products,
Do employees sleep on premises?
If so, are they in sleeping rooms apart from the bakery?
Drainage,
Water supply,
Washing facilities,
Water-closets,

Ventilation,
Floor,
Side walls,
Ceilings,
Furniture and utensils,
General condition as to cleanliness,
Is a copy of the law posted on the premises?

LOCATION OF BAKERIES.

No.	Location.
1	992 Central street.
2	970 Central street.
3	553 Gorham street.
4	175 Chapel street.
5	50 and 52 rear Keene street.
6	152 Mt. Hope street.
7	54 and 60 Charles street.
8	458 Gorham street.
9	404 Central street.
10	547 Central street.
11	554 Middlesex street.
12	551 Middlesex street.
13	640 and 642 Middlesex street.
14	182 Middlesex street.
15	100 Branch street.
16	129 Branch street.
17	317 Market street.
18	353 Bridge street.
19	376 Bridge street.
20	24 and 26 Concord street.
21	291 Fayette street.
22	163 East Merrimack street.
23	531 Chelmsford street.

No.	Location.
24	446 Bridge street.
25	186 Lakeview avenue.
26	Corner Broadway and Fletcher street.
27	360 Broadway.
28	374 Market street.
29	560 Market street.
30	77 Salem street.
31	115 Salem street.
32	Whiting street.
33	99 Adams street.
34	187 Broadway.
35	358 Suffolk street.
36	418 Suffolk street.
37	602 and 608 Merrimack street.
38	See 418 Suffolk street.
39	521 Merrimack street.
40	94 Merrimack street.
41	119 Paige street.
42	139 Paige street.
43	51 Mammoth road.
44	182 Smith street.
45	107 Gorham street.
46	209 Gorham street.
47	467 Lawrence street.
48	370 Central street.
49	19 East Merrimack street.
50	Next to corner of Tucker and Hall.
51	44 Tucker street.
52	11 Ward street.
53	6 Lewis place, rear 41 Aiken street.
54	Rear 32 Aiken street.
55	62 Ludlam street.
56	15 Aiken avenue.

No.	Location.
57	94 Lilley avenue.
58	Rear 64 Hovey street.
59	Rear 19 Bachman street.
60	415 Middlesex street.
61	345 Westford street.
62	98 Tilden street.
63	558 Rogers street.
64	Off Exeter street.
65	19 Union street.

Nothing has yet been done towards the execution of the law, as it was deemed wise to wait until the doubt had been removed as to the organization of the Board of Health, before ordering such changes as would seem proper after a full consideration of each case on its condition by the full Board of Health.

CASES OF CONTAGIOUS DISEASES REPORTED.

	1896	1895	1894	1893	1892	1891
Diphtheria (including croup)	110	120	47	85	69	78
Scarlet fever	76	160	304	209	240	237
Measles	346	53	27	541	91	675
Typhoid fever	178	172	282	160	373	293
Small pox			7	1		
	710	505	667	996	773	1283

DEATHS FROM CONTAGIOUS DISEASES.

	1896	1895	1894	1893	1892	1891
Diphtheria (including croup)	47	53	37	30	25	15
Scarlet fever	1	4	16	18	13	8
Measles	3	1		10	11	11
Typhoid fever	36	33	50	53	75	77
Small pox			3			
	87	91	106	111	124	111

DIPHTHERIA AND CROUP.

BACTERIOLOGICAL DEPARTMENT.

The work in this department has increased satisfactorily during the past year. Not only have there been more cultures taken, but this has occurred in a year when there was less diphtheria in the city. The number of physicians who have availed themselves of the bacteriological test has largely increased, and the results have given general satisfaction. There have been one or two cases when the physician has doubted the result of the bacteriological report, considering the case to be simple follicular tonsillitis, and where the examination proved the case to be diphtheria.

Doctor McCollom's idea seems to be the right one. He says, "In regard to the presence of the bacillus of diphtheria, in persons comparatively well, this is so rare that it does not seem to have any important bearing on the subject. It does seem to me, however, that a person with diphtheria bacilli in the secretions of the mouth is a source of danger to the community, and that he is liable to communicate the disease, of a most violent type, to other susceptible persons.

"While it may be a hardship on the individual to isolate him for a few days, yet the well-being of a community demands it. A person with diph-

theria bacilli in his throat is in a similar condition, so far as the community is concerned, to a person with a very slight eruption of small-pox. I think very few persons would care to have a person with even four or five small-pox pustules on his face, at large in the community."

In last year's report it was suggested that a negative bacteriological examination be made before a case with diphtheria be released from quarantine. The most approved custom is that there shall be two negative reports before the case be released, as it is very difficult in a struggling child to get the swab thoroughly in contact with the membrane, or the ulcerated portion where the membrane was situated, and cultures not to be taken for release from quarantine for at least a week from the beginning of the disease, the Klebs-Loeffler bacilli usually remaining from twelve to eighteen days.

Within a month I received two cultures from a physician who filled on the blank that he thought two children of a family had diphtheria. These were the first cultures he had ever taken, and they both proved negative, but at the request of the agent of the Board of Health, first cultures were taken by the bacteriologist, so as to be on the safe side, as it was in a tenement house district, not far from Little Canada. Two children were found apparently quite sick, who, when I tried to take cultures from their throats, fought

like little demons, but I finally got the cultures as best I could, and examined them next day. The case where the culture seemed most satisfactory, showed the diphtheria bacilli in almost pure culture, and the other case was negative, though there was just as large a membrane present in this negative case. The family had already lost one child a few days before, from the same disease. The facts emphasized the necessity of using the utmost care in taking cultures, and the unreliability of a single negative culture in a suspicious case.

Below is the classification of the disease by months.

Diphtheria and Croup.	Cases.	Deaths.
January	9	6
February	7	5
March	10	3
April	12	6
May	5	1
June	5	1
July	1	0
August	6	2
September	11	4
October	17	8
November	10	5
December	17	6
	110	47

	1896	1895	1894	1893	1892	1891
Diphtheria (including croup) cases reported.....	110	120	47	85	69	78
Diphtheria (including croup) deaths.....	47	53	37	30	25	15

Diphtheria cases where Antitoxine was used:

Cases.	Recovered.	Died.	Per cent. deaths.
31	28	3	10

Two of the cases which died were membraneous croup.

Diphtheria cases where Antitoxine was not used:

Cases.	Recovered.	Died.	Per cent. deaths.
79	35	44	56

BACTERIOLOGICAL EXAMINATION FOR DIPHTHERIA.

	Klebs-Loeffler bacillus present	—absent.
Clinical diagnosis diphtheria and croup.....	16	12
" " tonsilitis pharyngitis, etc....	5	28
" " doubtful or not stated.... .	10	31
" " tonsilitis or diphtheria.....	1	
" " bronchitis or croup.....		1
Culture tube contaminated or improperly made.		4
Re-examination to release from quarantine...	5	8
	37	84

SPUTUM EXAMINATION.

The Board decided to have sputum examined by the bacteriologist in cases of suspected tuberculosis of the lungs, and circulars to that effect were sent to the physicians of the city. It was not with the idea of isolating the cases, although according to the latest accepted theory, consumption is a contagious disease, but simply as an assistant to the physician in making his diagnosis. The examination takes a great deal of time, as we cannot make a culture from the sputum in these cases, as we do with the Klebs-Loeffler bacillus, on account of the bacillus of tuberculosis taking such a long time to grow, that the other bacteria which are necessarily present in the mouth and sputum, growing much more rapidly, destroy the culture media, before the tubercle bacillus has time to grow. We therefore have to make the examination by simply making cover glass preparations from the sputum and then staining and examine. In a given cover glass specimen there may be none, or there may be quite a number of tubercle bacilli present. One therefore does not feel justified in sending in a negative report in a case where the history and symptoms point to tuberculosis, until he has examined from three to five slides, which means two or three hours of confining work.

There are cases where the bacilli are found immediately on focusing the microscope, but they are exceptions. A great advantage of the bacteriological examination is the early recognition of the disease, often-times enabling patients to leave this part of the country in time for a complete cure.

The notice to physicians for the examination of the sputum was sent out April, 1896, and from that time to January 1, 1897, forty-six cases were examined, sixteen of which were found to be tuberculous.

Respectfully submitted,

CHAS. L. FOX, M. D.

Bacteriologist.

SCARLET FEVER.

The city has been very fortunate the past year with its scarlet fever experience. One death during 1896 is a remarkable result in a city of 85,000 inhabitants, and Lowell never has made so low a record since the registration of deaths was commenced in 1838.

	1896	1895	1894	1893	1892	1891
Cases reported...	76	160	304	209	240	23
Deaths.....	1	4	16	18	13	78
Per cent. fatal cases....	8	2.5	5	6	5	3

1896.	Reported cases.	Deaths.
January	10	
February	3	
March	6	
April	3	
May	11	
June	8	
July	1	
August	2	
September	6	
October	9	
November	11	1
December	6	
	—	—
	76	1

MEASLES.

Any statistics in relation to measles must be very incomplete and unreliable, owing to the fact that a large proportion of the cases are not seen by a physician, and not reported to the Board of Health. It is largely spread through the medium of schools. It is infectious before the rash appears and therefore before diagnosis is confirmed, even if it is sought, but in a great proportion of cases it is not sought. Upon notification this department cards the house, and excludes the children of the family from school until the recovery of the child that is ill.

1896.	Reported cases.	Deaths.
January		
February	1	
March		
April	3	
May	22	
June	117	2
July	76	1
August	15	1
September		
October	54	
November	16	1
December	42	
	346	5

TYPHOID FEVER.

1896.	Reported cases.	Deaths.
January	12	
February	57	8
March	17	6
April	7	2
May	12	3
June	6	2
July	8	
August	10	5
September	21	3
October	13	3
November	8	2
December	7	2
	178	36

	Reported cases.	Deaths.
Total, 1896	178	36
" 1895	172	33
" 1894	282	50
" 1893	160	53
" 1892	373	75
" 1891	293	77
" 1890	454	123

PLACES OF DEATH.

Ward 1	4
" 2	5
" 3	2
" 4	0
" 5	2
" 6	4
" 7	5
" 8	3
" 9	1
St. John's Hospital	4
Lowell Hospital	5
Lowell General Hospital	1
	36

Males	19
Females	17
Oldest	78
Youngest	4
Average	25

Between January 1st and February 8th, the following amounts of river water were pumped direct from the river into the water supply of the city:

WATER PUMPED FROM THE MERRIMACK RIVER.

1896.		Gallons.
January	1	1,265,280
"	2	1,213,440
"	6	2,008,320
"	7	4,138,115
"	8	4,276,125
"	9	2,247,680
"	10	3,177,280
"	11	2,111,360
"	12	1,991,040
"	13	2,164,800
"	14	2,063,360
"	15	2,123,200
"	16	2,087,040
"	17	2,068,100
"	18	2,071,040
"	19	1,901,440
"	20	1,214,240
"	25	2,091,520
"	26	1,652,160
"	27	2,077,120
"	28	2,065,280
"	29	2,071,040
"	31	920,640
February	1	2,082,880
"	3	2,822,400
"	4	2,079,360
"	5	2,074,240

1896.			Gallons.
February	6	(Filtered)	1,802,560
"	7	"	1,862,400
"	8	"	1,651,520

Not a drop of water has been pumped from the Merrimack River since February 8, 1896.

That a consequent outbreak of typhoid fever (sixty nine reported cases and nine deaths in January and February) has a consequent relation to the pumping of unfiltered river water seems obvious and certain. This water, contaminated with the sewage of cities and towns above us, is always liable to contain bacillus or germ that causes typhoid fever.

About a fortnight is required after drinking infected water for the disease to iucubate in those susceptible to its germs.

An outbreak of typhoid fever is liable to occur whenever, by reason of drouth in summer, wastage in winter, or breaking of pumps, it becomes a necessity to use unfiltered river water. Of course there may be cases of typhoid fever from other sources, such as drinking canal water (which is altogether too common a practice on the corporations), or infected milk. Cases have been imported out of the city and the disease is also liable to be transmitted from one member of the family to the others by uncleanly nursing.

The most frequent cause of typhoid fever is, however, infected drinking water, and in the days when all our water supply came from the river, Lowell had more typhoid fever than most other cities of the State. This prevalence of the disease culminated in the epidemic of 1890, when there were 125 deaths from the disease, nine times as many as occurred in Worcester in the same year, and a larger percentage than occurred in London, New York, Chicago, Philadelphia or Boston.

Since the first set of driven wells were put into use in the fall of 1893, typhoid fever became less prevalent here, until in 1895, there were only thirty-three deaths from this disease.

In this connection it will be well to mention Lawrence. Its reputation as regards typhoid fever was nearly as bad as that of Lowell. This led to the establishment there of a State experiment station to observe the effects of filtration upon polluted waters and sewage. The excellent work done by our Commonwealth in this line has received commendation in this country and abroad. From the conclusion there obtained, the Lawrence city filter was constructed under the direction of the State Board of Health. Since the filter was put into operation, the deaths from typhoid fever in Lawrence have fallen off until there are but little over a quarter of the former average. Last year there were sixteen deaths from typhoid fever

in Lawrence. Two contracted the disease out of town, and nine of the fourteen others were known to have drank canal water.

In February of the present year, while we had fifty-seven cases of typhoid fever, Lawrence, drinking filtered river water, had none.

In view of the foregoing facts which show that typhoid fever is a preventable disease, the Board of Health believed in the propriety of making such provisions as shall beyond peradventure preclude the delivery of unfiltered river water to our citizens. This river water, while affecting some parts of the city more than others, is nevertheless liable, in a diluted form, to reach nearly throughout the city.

While not presuming to speak authoritatively upon the efficiency of the present filter constructed twenty years ago, the Board realizes that since that time valuable discoveries have been made in the construction and operation of filter beds, and tending towards the protection of human life and welfare. The Board would suggest to the City Council the propriety of having made by the sanitary authorities of the State, or others, a thorough bacteriological examination of both filter and gallery, with such other tests as may give the Council all the information available, as to the efficiency of the present filter under the circumstances.

While not officially informed of the fact, the Board understands that the unpolluted water from the boulevard plant of driven wells is led into the filter gallery and mingled with the water from that and the filter bed. The Board believed that it would be wise, as a measure of safety, to know the sanitary status of the water from the last two mentioned sources.

The Board recommends the adoption of such measures, that in cases of exigency compelling the further resort to unfiltered or improperly filtered river water, the consumers may be notified and warned to boil the water used for drinking purposes. Such a measure will render the water harmless, and even if the advice be not followed by all consumers, the authorities having the oversight of such matter will, at least, have discharged the duty incumbent upon them.

The Board submits for serious consideration the question, too, whether, with all the precautions that have been taken to supply the city with pure water, the necessity of resort to river water has been entirely obviated. Upon this question the Board offers the following statements: The population is constantly increasing, while there is a limit to the area of the water-shed from which the driven wells can draw their supply. Again the annual rainfall for Lowell is a little below the average for the State. There are also great

variations in the rainfall, in the dry season often falling to less than the normal amount. This would mean that a plant ordinarily pumping 8,000,000 gallons daily would yield but 4,000,000 gallons, in which case even with compulsory meterage, the river would have to be drawn upon.

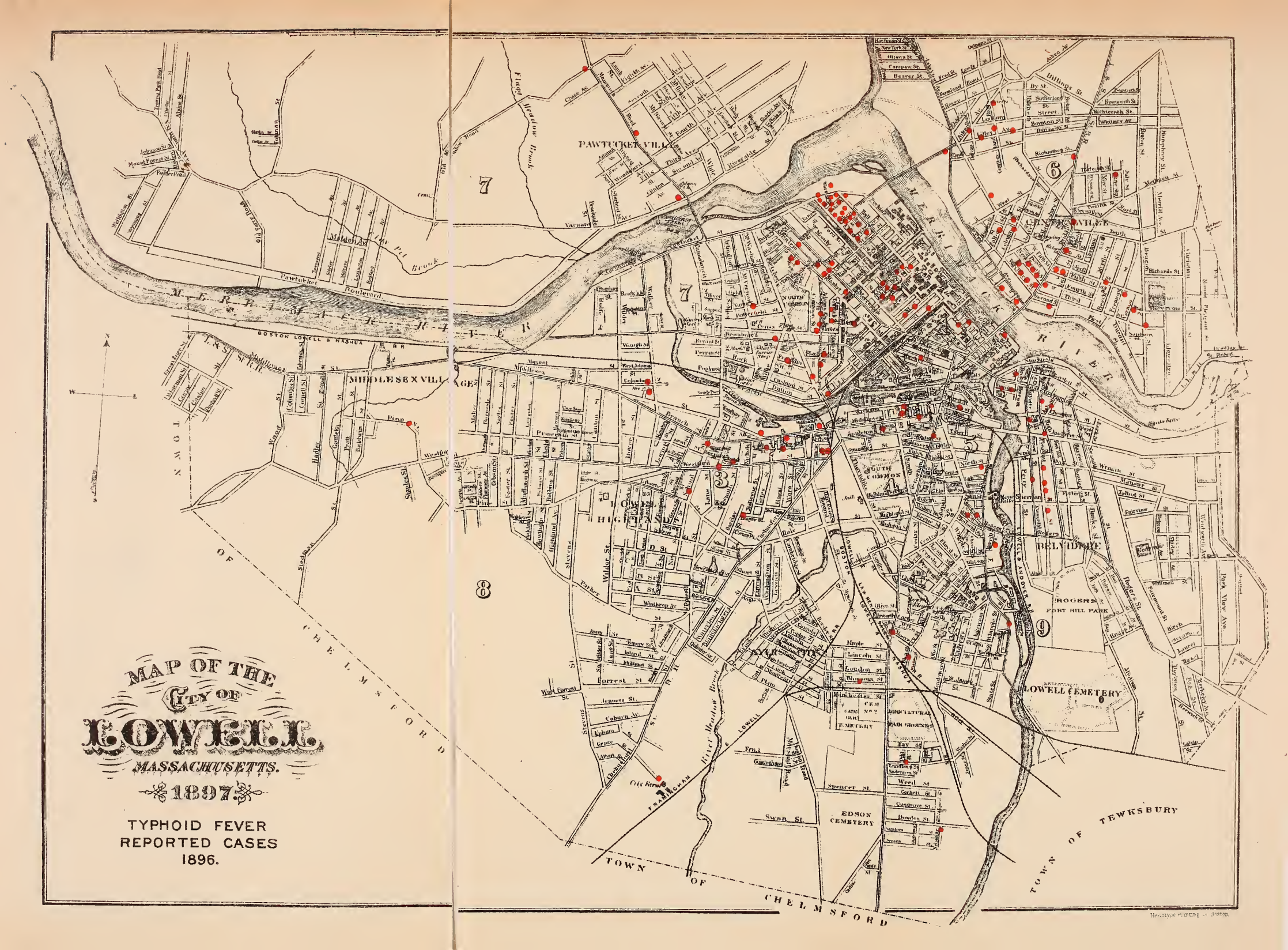
Again in winter it is often cheaper to avoid frozen pipes than it is to pay for wasted water. Finally there is the liability of a break down in the pumps or pipes compelling resort to the river. In view of the foregoing facts, and considering the possible sanitary inefficiency of the filter gallery and filter bed, the Board believes there must of necessity be occasional use of unfiltered river water.

As to the compulsory adoption of meters, the Board of Health desires to transmit to your honorable body, as teachings of experience amply sustained by the most learned authorities, the wisdom of providing for the fullest practical use of good water. Waste of water is not to be defended, but there may be an honest difference of opinion as to what constitutes waste, depending whether the question is looked at from the standpoint of an authority charged with the duty of providing water at the lowest possible cost, or from the standpoint of an authority charged with oversight of the public health. Fall River is often quoted as a city where the use of the water

per capita is low. In that city meters, although not compulsory, are very generally used. But little city water is used there for manufacturing purposes. Moreover, the death rate in Fall River for the five census years, 1870–90 exceeds that of Lowell. Even some of the smaller cities use far more water per head than does Lowell. The Board feels impelled to urge that if ordinances be enacted working restriction upon the use of water, a minimum rate be fixed sufficiently high to allow the utmost liberality consistent with the conditions.

In conclusion the Board of Health believes, as stated in its annual reports, that a modern filter plant of suitable capacity should be constructed as an auxiliary to the present provision for Lowell's water supply. Such a plant is not expensive as compared with other measures to secure pure water. Its use in Lowell has already been advised by the sanitary authorities of the State, and its efficiency in preventing typhoid fever has been amply demonstrated.

Merrimack River water, aside from the presence of dangerous bacteria, is good water, better than of a multitude of cities in this country and Europe, where filtered river water is used with entire success. The conditions in Lowell encourage an even better result than in Lawrence. The supply is inexhaustible, the product healthful, the resource certain.



TYPHOID FEVER
REPORTED CASES
1896.

This Board feels impelled, without intending to presume upon the prerogatives of the City Council or any of its servants, to urge the immediate provision of the people of Lowell with this final safeguard against the enemy that has already wrought so much danger here.

Notwithstanding the use of driven well water for almost all the year 1896, the deaths from typhoid fever were 36 as compared with 33 in 1895. The Board are disappointed at the showing, because they had been expecting better results from a year when the water supply of the city could be taken from other source than the raw and unfiltered product of the Merrimack River. Still, throwing aside the cases that are the consequence of the river water pumped in January and February (fourteen cases), and we have a very marked decrease from comparison with the last ten years in Lowell.

As long as many of our operatives drink canal water instead of city water, it is not fair to our driven well supply to attribute to it in any way the cause of our typhoid fever. It is evident that a supply wholly from the driven wells could not be contaminated with sewage. But as can be seen from the plotted map on the preceding page the reported cases were mainly from the mill parts of the city, and until the well supply of the city is extended across the canals into the mills, the operatives will be in constant danger of typhoid

fever whenever the cities of Manchester, Concord, and Nashua are afflicted with the disease.

DEATHS FROM CHOLERA INFANTUM.

	1896	1895	1894	1893	1892	1891
January	0	1	1	4	2	2
February	1	3	1	6	2	2
March	0	3	1	12	3	3
Total first quarter	1	7	3	22	7	7
April	0	0	2	7	0	5
May	3	3	2	2	9	7
June	25	11	9	15	25	27
Total second quarter	28	14	13	24	34	39
July	80	75	99	99	86	81
August	73	66	43	76	56	57
September	32	40	37	38	39	53
Total third quarter	185	181	179	213	181	191
October	5	14	21	13	5	8
November	1	1	4	3	2	6
December	0	1	3	2	4	3
Total fourth quarter	6	16	28	18	11	17
Total for the year	220	218	223	277	233	254

PRINCIPAL CAUSES OF DEATH.

	1896	1895	1894	1893	1892	1891
Cholera infantum and other diarrhœal diseases.....	266	247	257	335	273	306
Phthisis and other tuberculosis	207	185	209	228	238	256
Pneumonia and bronchitis..	233	235	231	343	330	265
Infantile debility, marasmus, and inanition..... ..	149	142	146	216	231	155
Heart disease.....	153	154	123	128	140	156
Typhoid fever.....	36	33	50	53	75	77
Apoplexy and paralysis....	83	76	61	107	99	74
Old age.....	68	62	51	69	56	61
Disease of the brain (Unclassified)	49	55	40	43	60	40
Convulsions	48	57	38	63	51	53
Disease of the kidneys....	64	62	47	54	64	66
Meningitis	59	62	53	56	83	65
Diphtheria and croup.....	47	53	37	37	25	15
All other causes.....	439	434	432	363	499	383
	1901	1857	1775	2095	2224	1972

VITAL STATISTICS.

	1896	1895	1894	1893	1892	1891
Deaths, Males.....	902	943	898	1015	1083	948
Deaths, Females.....	999	914	877	1080	1141	1024
Totals.....	1901	1857	1775	2095	2224	1972
Children under one year...	584	566	541	683	673	589
" " two years.	729	689	652	820	820	710
" " five years.	844	788	751	936	928	830
Per cent of total deaths under five years.....	42.4	41.3	42.3	44.7	41.8	42.1

Birthplace	Of Deceased.	Of Parents.
Lowell	961	179
Massachusetts and elsewhere	92	180
Other states	194	377
Ireland	287	1130
Dominion of Canada	233	1280
Great Britian	95	321
Other countries	18	113
Unknown	21	222
	1901	3802

PLACES OF DEATH.

Ward 1	153
" 2	223
" 3	151
" 4	168
" 5	210
" 6	188
" 7	354
" 8	118
" 9	118
Almshouse	71
Lowell Hospital	28
St. John's Hospital	101
Lowell General Hospital	18
Total deaths	1901

Still births during the year 173

PLACES OF INTERMENT.

Catholic cemetery	792
Edson cemetery	335
Lowell cemetery	83
Other cemeteries	9
Removed from the city	682
Total	1901

DEATHS CLASSIFIED.

	1896	1895	1894	1893	1892	1891
Diseases of the nervous system	257	258	205	284	301	245
Diseases of the circulatory system	160	159	133	130	141	150
Diseases of the respiratory system	262	252	249	376	350	294
Diseases of the digestive system	84	101	81	86	106	90
Diseases of the genito-urinary system	75	77	53	58	70	73
All other local diseases	14	14	12	7	9	15
Total deaths from local diseases	852	861	733	941	977	867
Total deaths from zymotic diseases	412	392	427	518	516	461
Total deaths from constitutional diseases	313	294	307	295	349	340
Total deaths from developmental diseases	257	241	245	285	324	257
Total deaths from violence or unknown causes	67	69	63	56	58	47
Total deaths from all causes	1901	1857	1775	2095	2224	1972

DISEASES IN 1896 COMPARED WITH 1895.

	Decrease.	Increase.
Cholera infantum and other diarrhœal diseases		19
Phthisis and other tuberculoses		22
Pneumonia and bronchitis	2	
Infantile debility, marasmus and inanition		7
Heart disease	1	
Typhoid fever		3
Apoplexy and paralysis		7
Old age		6
Diseases of brain (unclassified)	6	
Convulsions	9	
Disease of kidneys		2
Meningitis	3	
Diphtheria and croup	6	
All other causes		5
Totals	27	71
Total increase		44

DEATH RATE.

	Year.	Population.	Deaths.	Death rate.
Population, census	1890	77,696	1959	25.21
" estimated	1891	79,029	1972	24.95
" "	1892	80,361	2224	27.67
" "	1893	81,694	2095	25.62
" "	1894	83,026	1775	21.38
" census	1895	84,359	1857	22.01
" estimated	1896	85,700	1901	22.18

PAY ROLLS.

DECEMBER 28, 1895, TO DECEMBER 19, 1896.

January	$3,115 18
February	3,095 57
March	2,549 60
April	2,564 28
May	3,258 06
June	2,575 75
July	2,571 92
August	3,181 14
September	2,536 97
October	3,314 11
November	2,551 29
December	1,880 92
	$33,194 79

ANALYSIS OF PAY ROLLS.

DECEMBER 28, 1895, TO DECEMBER 19, 1896.

Ashes	$11,311 25
Swill	7,064 67
Alleys and dumps	2,854 27
General inspection	1,872 00
Contagious disease	1,274 00
Repairs	590 00
Inspection of plumbing	1,014 00
Blacksmith	775 00
Stable	2,106 00
Fumigation	775 20
Agent and superintendent	1,820 00
Registrar	540 00
Cremator	1,198 40
	$33,194 79

BILLS PAID BY THE HEALTH DEPARTMENT FROM JANUARY 1 TO DECEMBER 30, 1896.

January	$ 761 84
February	1,020 76
March	613 06
April	1,173 80
May	1,422 59
June	879 71
July	1,157 32
August	823 62
September	2,161 57
October	
November	573 43
December	542 76
	$11,148 46

ANALYSIS OF BILLS PAID BY THE HEALTH DEPARTMENT FROM JANUARY 1ST TO DECEMBER 30, 1896.

Hay	$1,766 74
Corn	154 53
Oats	1,256 94
Straw	210 35
Stable (Sundries)	884 01
Use of horses	302 50
New horse	125 00
Boarding and keeping horses	486 07
New harnesses	216 95
Repairing harnesses	438 21
Repairing wagons	321 27
Amount carried forward	$6,162 57

Amount brought forward		$6,162 57
Office (Sundries)		825 83
Printing annual report		81 25
Hardware		303 76
Professional services (medical		379 50
Professional services (bacteriological)		450 00
Professional services (legal)		25 00
Plumbing commission (services)		86 00
Bacteriological department		54 27
Telephone service		306 81
Temperature readings		157 75
Insurance		90 00
Water department		80 78
CREMATOR.		
Coal	$1,506 89	
Wood	43 09	
Iron works	260 31	
Building sewer	106 25	
Lease of land	150 00	
Fire brick	28 08	
Freight	12 92	
Painting stack	25 00	
Repairing iron wheelbarrow	10 90	
Stove grate	1 50	
		2,144 94
		$11,148 46
Pay rolls		$33,194 79
Bills		11,148 46
Salary J. B. Field, M. D		500 00
" James Bayles		500 00
" T. F. Harrington, M. D. (February to August)		243 86
		$45,587 11

Total cost 1896	$45,587 11
" " 1895	46,324 04
" " 1894	57,073 73
" " 1893	49,426 54

The year 1896 shows a saving in expense of $736.93 as compared with 1895, and of $11,486.62 as compared with 1894.

REVENUE.

Balance 1895	$ 123 38
Appropriation 1896	35,000 00
Transfer reserve fund	10,000 00
Transfer corporation tax	2,000 00
Plumbing examinations	19 50
Plumbing renewals	7 50
Ashes from cremator	167 17
Work done at blacksmiths	56 40
Lumber of bath house	15 00
Total revenue	$47,388 95
" expense	45,587 11
Credit to Health Department	$ 1,801 44

Schedule of Property Owned by the City of Lowell, Paid for from the Appropriations and Under the Control of the Board of Health.

HORSES.

No. 1—Black horse, "Dandy," 10 years, 1505 lbs., sound.
2—Bay mare, "Connor," 6 years, 1300 lbs., ringbone.
3—Bay horse, "Jack," 17 years, 1490 lbs., sound.
4—Bay mare, "Nellie," 6 years, 1360 lbs., sound.
5—Bay horse, "Major," 6 years, 1350 lbs., sound.
6—Brown mare, "Maggie," 10 years, 1350 lbs., sore forward.
7—Bay horse, "Tommy," 12 years, 1345 lbs., sore forward.
8—Black horse, "Jim," 11 years, 1385 lbs., condition fair.
9—Bay horse, "Dick," 12 years, 1371 lbs., sound.
10—Bay horse, "Sam," 9 years, 1400 lbs., sound.
11—Bay horse, "Baby," 8 years, 1430 lbs., sound.
12—Black mare, "Jennie," 8 years, 1440 lbs., ringbone, sore, no good.
13—Black mare, "Nellie B," 15 years, 1250 lbs , very little sore.
14—Black horse, "John H.," 10 years, 1400 lbs., sound.
15—Black horse, "Nigger," 8 years, 1220 lbs , sound.
16—Bay horse, "Baldy," 9 years, 1600 lbs., sound.
17—Sorrel horse, "Mickey," 11 years, 1405 lbs., wind-broken.

No. 18—Bay horse, "Dan," 11 years, 1400 lbs, condition fair.
19—Brown horse, "Billy," 12 years, 1350 lbs., wind-broken, badly.
20—Bay horse, "Fred," 11 years, 1360 lbs., sound.
21—Bay horse, "Duke," 8 years, 1160 lbs., very little sore.
22—Sorrel mare, "Flora," 6 years, 1145 lbs., sound, ambulance.
23—Bay mare, "Lady Whipple," 15 years, 1035 lbs., sound, inspector of plumbing.
24—Grey mare, "Daisy," 17 years, 1005 lbs., not sound, office horse.

Twenty-four horses, average price $75	$1,800

WAGONS AND SLEDS.

Four double ash carts, at $50	$200 00
Eight single ash carts, at $50	400 00
Three double ash sleds, at $40	120 00
Fourteen single ash and swill sleds, at $40	560 00
One double swill wagon	100 00
Eight single swill wagons, at $50	400 00
One steel wagon	50 00
Four general wagons, at $50	200 00
One hospital wagon	25 00
One ambulance	175 00
One coupe	75 00
One Goddard buggy	100 00
Two sleighs	35 00
Two pungs	40 00
One covered sleigh	50 00
Two paper wagons	100 00
	$3,130 00

HARNESSES AND EQUIPMENTS.

Twenty-one single harnesses, all in fair condition...	$420 00
Five double harnesses, all in fair condition.....	125 00
Twenty-five halters.....	4 00
Three horse covers.....	6 00
Five wolf robes.....	20 00
Four woolen lap robes	2 00
Twenty-one stable blankets.....	10 00
Seven street blankets.....	10 00
Two rubber lap robes.....	4 00
Twelve surcingles.....	6 00
Twenty-one curry combs and brushes.....	15 00
Five mane brushes.....	2 00
Seventeen cards.....	1 00
Thirteen canvas covers for ash carts.....	25 00
One large canvas.....	2 50
One set second-hand buggy wheels.....	2 00
	$654 50

MISCELLANEOUS.

Two public urinals.....	$100 00
Three stoves	5 00
Two copper tanks.....	2 00
One hundred fifty feet rubber hose.....	15 00
Twelve ice cutters.....	5 00
One pair rubber boots	2 00
Four hundred bushels oats (not paid for)....	
Seven gallons alcohol (not paid for.....	
One gas radiator....	10 00
Eight thousand pounds hay (baled).....	80 00
Five thousand five hundred pounds straw	25 00
Amount carried forward,.....	$244 00

Amount brought forward	244 00
Thirty bushels corn (not paid for)	
One dozen bottles "Grey's Lotion"	2 00
Four bottles spavin cure	2 00
Four packages mustard	25
One ice tank	1 00
One set blocks and falls	3 00
Six sets fumigation tanks	6 00
One clock	2 00
One mirror	1 00
Eight shovels (pointed)	6 00
Four swill buckets (new)	4 00
One swill can	2 00
Three wagon jacks	1 50
Thirty shovels (square)	20 00
Five hay forks	50
Two feed trucks	4 00
One freight truck	5 00
One hay cutter	5 00
Five gross matches	50
Three sets horse clippers	2 00
One revolver	5 00
Two wheel-barrows	1 00
Four picks	3 00
Three rakes	1 00
One and one-half tons loose hay	30 00
Seven hoes	2 00
Five brooms (new)	2 00
Five canvas bags	3 50
	$359 25

CARPENTER SHOP.

Stock and Tools, Value, $300.

300 ft. spruce plank, 500 ft. matched pine, 200 ft. 7-8 in. oak, 150 ft. oak plank, 100 ft. 2 x 4 in. spruce, 50 ft. 4 x 4 in. spruce, 50 ft. spruce boards, 50 lbs. paint, 1 gall. linseed oil, 1 step ladder, 1 ladder, 3 hand saws, 1 spoke augur, 1 plough plane, 1 axe, 1 mallet, 1 pr. snips, 1 bit stock, 2 shaves, 1 square, 3 chisels, 6 bits, 1 plane, 2 jack-screws, 1 wagon jack, 1 pr. clamps, 1 grind-stone, 2 whiffle-trees, 1 spreader, 100 lbs. nails, 4 files, 1 thumb guage, 1 level, 4 packages screws, 2 packages tacks.

BLACKSMITH SHOP.

Stock and Tools, Value, $300.00.

1 brick forge and bellows, 1 anvil, 12 pr. tongs, 1 vise, 1 drilling machine, 1 set lightning screw plate tape and dies, 1 bolt and rivet clipper, 2 files, 1 wheel graduate, 1 iron saw, 3 monkey wrenches, 4 large size (S) wrenches, 4 small size (S) wrenches, 1 tire-bolt holder, 5 tap wrenches, 1 clip puller, 1 tire puller, 1 spike puller, 9 machine drills, 2 small oil cans, 1 axle set, 2 stake chains, 2 draw chains, 1 square, 6 heading tools, 1 shoeing box, 1 buttress, 1 hammer, 1 pair pincers, 1 shoeing knife, 2 clinch cutters, 2 rasps (old), 1 tool bench 12 punchers, 3 handle chisels, 3 handle punches, 1 handle fuller, (top and bottom), 1 handle flatter, 1 handle swedge top and bottom, 1 bottom swedge, 1 toe-calk, 1 sledge, 4 hammers, 900 lbs. horse shoes, $3.75 per cwt., 150 lbs. toe calks, 110 lbs. band iron, 50 lbs. bar iron, 95 lbs. horse shoe nails, 16 to 20 cents per lb., 8 lbs. bolt nuts, 300 tire bolts, 8 lbs. iron washers, 400 carriage bolts, 200 lbs. round iron, about 5 cts. lb., not paid for; ton soft coal, not paid for.

Small pox hospital	$1,000 00
Furniture	400 00
Engle cremator	3,000 00
Meterological instruments	75 00
Bacteriological instruments	100 00

SUMMARY.

Horses	$1,800 00
Wagons and sleds	2,630 00
Harnesses and equipments	654 00
Miscellaneous	359 25
Carpenter shop	300 00
Blacksmith shop	300 00
Small Pox hospital	1,000 00
Furniture	400 00
Engle Cremator	3,000 00
Meteorological instruments	75 00
Bacteriological instruments	100 00
	$10,618 75

Summary of Meteorlogical Observations Taken at Lowell, Mass.

For the year 1896, as reported by Mr. F. E. Saunders, for the Board of Health.

MONTH.	Mean Barometer.	Mean Temperature.	Mean Relative Humidity.	Mean Dew Point.	Prevailing Direction of Wind.	Monthly Rainfall Inches.
January	30.11	23.8°	84.8°	19.0	W.N.W.	2.243
February	29.78	27.5°	98.3°	24.3	W.N.W.	4.649
March	29.85	31.2°	85.7°	25.1	W.N.W.	6.310
April	30.07	48.9°	69.8°	36.0	S.W.W.	1.335
May	29.96	61.3°	67.6°	47.8	S.S.W.	2.316
June	29.91	65.9°	74.0°	55.9	S.W.	2.683
July	29.95	72.8°	76.9°	62.5	S.W.	3.786
August	29.98	71.6°	80.0°	62.5	W.S.W.	2.759
September	29.99	62.0°	82.6°	53.9	S.S.W.	9.066
October	29.99	48.7°	84.3°	41.6	W.N.W.	2.995
November	30.14	44.7°	84.0°	37.7	W.N.W.	3.023
December	30.11	28.3°	81.9°	20.9	W.N.W.	1.126
Total						42.291
Means	29.99	48.9°	81.0°	40.6	S.W.	

Mean barometer, 29.99 inches.
Highest barometer, 30.77 inches on December 28th.
Lowest barometer, 28.85 inches on Feb. 7th.
Annual range of barometer, 2 inches.
Mean temperature, 48.9.
Highest temperature, 98 5 on August 12th.
Lowest temperature 14 on February 7th.
Annual range of temperature, 112.5.
Greatest daily range of temperature 47 on May 10th.
Least daily range of temperature 1 on March 1st.
Mean maximum temperature 59.7.
Mean minimum temperature 39.
Mean daily range of temperature 18.8.
Mean dew point 40.6.
Mean relative humidity 81.
Prevailing direction of wind S. W.
Number of foggy days, 1.
Number of clear days 83.
Number of fair days 182.
Number of cloudy days, 100.
Total number of days on which rain or snow fell 105.
Thunder storms 4.
Average annual rainfall for past 19 years 42.406 inches.
Highest annual rainfall for past 19 years 59.915 inches in 1888.
Lowest annual rainfall for past 19 years 34.375 inches in 1894.

TABLE SHOWING DEATHS IN EACH MONTH AND YEAR FOR THE PAST NINETEEN YEARS.

Months.	1878	1879	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896
January....	64	105	107	84	115	113	124	103	105	172	158	149	246	160	306	191	178	137	124
February...	78	69	93	103	82	91	108	121	100	161	132	124	137	156	200	155	160	174	143
March	104	78	125	109	91	102	121	107	150	163	152	127	130	185	197	202	150	168	170
April.....	84	83	103	111	105	122	110	114	125	180	166	182	165	150	184	177	130	162	175
May.....	82	73	90	101	112	100	98	99	121	162	124	144	157	161	155	192	117	107	117
June	78	70	123	86	99	118	87	105	116	133	107	176	114	144	145	146	116	135	131
July	137	108	135	144	137	156	143	134	155	205	189	186	220	207	229	258	203	198	237
August	127	97	146	146	137	139	136	137	161	182	180	196	200	195	204	205	155	176	223
September..	121	75	184	184	127	152	131	106	124	138	153	182	157	173	177	164	153	162	157
October	78	92	97	97	118	102	107	99	116	130	149	145	129	153	145	121	147	156	157
November ..	58	74	89	93	81	105	106	107	96	123	113	120	138	119	119	116	126	136	126
December ..	82	82	90	105	113	120	110	97	130	123	141	168	166	169	163	168	140	146	141
Totals.....	1094	1005	1363	1363	1327	1420	1380	1329	1499	1872	1763	1899	1959	1972	2224	2095	1775	1857	1901

TABLE SHOWING RAINFALL IN INCHES BY MONTHS FOR NINETEEN YEARS, 1878-1896.

Year.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1878	5.279	5.310	4.354	8.139	0.587	3.048	2.186	10.760	0.887	5.383	6.713	5.923	58.575
1879	2.475	3.762	5.013	4.030	2.279	5.709	4.378	6.176	2 167	1.434	3.364	4.465	45.262
1880	4.359	3 944	3.005	2.375	2.676	1.702	6.518	3.156	1.539	2.823	1.841	2.581	36.519
1881	5.338	3.151	7.210	1.855	4.274	4.900	2.496	1.731	2.730	1.962	4.282	4 253	44.182
1882	4.527	5.773	3.019	1.674	4.904	2.789	1.677	0.984	7.313	2.312	1.011	2.027	38.010
1883	2.923	3.405	1.885	1.895	4 640	2.036	3.583	0.909	1.487	5.292	1.730	2.623	32.418
1884	4.844	5.703	5.013	4.110	3.684	3.064	3.198	3.977	0.924	1.945	2 328	5.149	44 039
1885	4.856	4.095	1.022	3.606	3.589	4.293	6.026	6.098	1.581	4.841	5.183	2.811	48.001
1886	6.765	6.535	3.388	1.966	3.587	1.859	3.512	3.128	3.963	2.781	4.901	4.444	46.829
1887	5.720	5.182	4.738	4.046	1.644	2,608	5.425	10.931	2.228	3.116	3.270	4.547	53.445
1888	4.661	4.307	6.519	3.782	3.890	2.809	3.057	4.857	7.966	6.780	5.982	5.305	59.915
1889	5.037	1.710	1.938	3.830	3.889	2.592	6.102	3.979	3.266	4.268	6.929	3.366	46.756
1890	2.766	3.767	6.834	1.987	5.669	3.530	3.447	4.856	4.457	7.705	1.584	4.466	51.067
1891	7.041	3.840	5.953	3.564	2.289	3.659	2.969	1.966	1.807	2.926	1.913	3.204	41.131
1892	5.389	2.742	2.643	0.628	5.861	4.444	2.321	4.304	1.973	1.378	5.829	1.106	38.618
1893	2.392	7.703	2.429	2.946	4 900	2.414	2.696	3.944	2.293	3.825	1.933	5.460	42.945
1894	3.349	3.502	1.268	3.757	4.359	0.372	2.998	0.925	3.027	3.461	3.519	3.838	34.375
1895	3 306	1.471	2.656	4.569	1.782	2.631	2.659	2.017	2.230	6.674	8.165	3.172	41.332
1896	2.243	4.649	6.310	1.335	2 316	2.683	3.786	2.759	9.066	2.995	3.023	1.126	42.291

MEMBERS OF THE BOARD OF HEALTH.

YEAR.	CHAIRMAN.	OTHER APPOINTED MEMBERS.	CITY PHYSICIANS, EX-OFFICIO.	AGENT AND SUPT. OF HEALTH DEPT.
1878	J. W. B. Shaw	Michael Hoar	L. Huntress, Jr., M. D.	
1879	J. W. B. Shaw	Michael Hoar	E. W. Trueworthy, M. D.	
1880	J. W. B. Shaw	Michael Hoar	E. W. Trueworthy, M. D.	
1881	J. W. B. Shaw	Nathan Allen, M. D.	E. W. Trueworthy, M. D.	
1882	J. W. B. Shaw	Nathan Allen, M. D.	W. G. Eaton, Jr., M. D.	Frederick A. Bates.
1883	J. W. B. Shaw	Wm. M. Hoar, M. D.	W. G. Eaton, Jr., M. D.	Frederick A. Bates.
1884	Wm. M. Hoar, M. D.	James J. McCarty, M D.	W. G. Eaton, Jr., M. D.	Frederick A. Bates.
1885	J. W. B. Shaw	James J. McCarty, M. D.	John J. Colton, M. D.	Frederick A. Bates.
1886	J. W. B. Shaw	Nathan Allen, M. D.	John J. Colton, M. D.	Frederick A. Bates.
1887	Nathan Allen, M. D.	Charles R. Costello	John J. Colton, M. D.	Frederick A. Bates.
1888	James B. Field, M. D.	Charles R. Costello	J. Arthur Gage, M. D.	Frederick A. Bates,
1889	James B. Field, M. D.	Charles R. Costello	J. Arthur Gage, M. D.	Frederick A. Bates.
1890	James B. Field, M. D.	Charles R. Costello	J. Arthur Gage, M. D.	Frederick A. Bates.
1891	Charles R. Costello	James B. Field, M. D.	Wm. P. Lawler, M. D.	H. H. Knapp.
1892	Charles B. Costello	James B. Field. M. D.	Wm. P. Lawler, M. D.	H. H. Knapp.
1893	James B. Field. M. D.	James Bayles	Wm. P. Lawler, M. D.	H. H. Knapp.
1894	James B. Field, M. D.	James Bayles	Omer P. Porter, M. D.	H. H. Knapp.
1895	James B. Field, M. D.	James Bayles	Omer P. Porter, M. D.	H. H. Knapp.
1896	James B. Field, M. D.	James Bayles	Omer P. Porter, M. D.	H. H. Knapp.

ANNUAL REPORT

OF THE

INSPECTOR OF MILK AND VINEGAR,

OF THE

CITY OF LOWELL,

FOR THE YEAR 1896.

LOWELL, MASS.:
COURIER-CITIZEN COMPANY, PRINTERS.
1897.

CITY OF LOWELL.

IN BOARD OF ALDERMEN, January 15, 1897.

Received and ordered on file.

GIRARD P. DADMAN, *City Clerk*.

REPORT.

To His Honor the Mayor, and the Board of Aldermen of the City of Lowell:

GENTLEMEN: — I have the honor to submit my sixth annual report as Inspector of Milk and Vinegar.

The work of the department has been continued on the same lines as last year, by the chemical analysis of all samples of milk, vinegar, and butter taken, and many that have been brought in. There have also been many samples of water analyzed; the biological work has also been continued, and many samples of milk and water have been examined for bacteria.

The duties of the Inspector, as defined by statutes under which he acts, are the issuing of licenses, the registration of stores where milk or oleomargarine are sold, collection and inspection of samples, and the enforcement of the law in the courts.

The statistics of the office and the detail of the work performed will be found under the proper headings.

LICENSES.

The statutes require the Milk Inspector to license every person who conveys milk, in carriages or otherwise, for the purpose of selling the same, annually, on the first day of May, or within thirty days thereafter, and that they shall pay fifty cents for the use of the City. The statutes also require all stores, booths, stands, or market places, before selling milk, to register in the books of the Inspector and pay fifty cents, which fee is paid but once. Licenses are issued only in the name of owners, and may not be sold, assigned, or transferred. Each license records the name, residence, place of business, number of carriages or other vehicles used, the name and residence of every driver or other person engaged in the carrying or selling, and the number of the license.

The licensee is required to cause his name, the number of his license, and his place of business to be legibly placed on each outer side of all carriages or vehicles used by him in the sale and conveyance of milk, and to report to the Inspector any change of driver or other persons employed; for failure to comply with these requirements, or for selling or exposing for sale from carriages or other vehicles, without first being licensed, a fine of not less than thirty nor more than one hundred dollars may be imposed. Failure to register for the sale of milk from store, booth, stand, or market place, is punishable by a fine not exceeding twenty dollars.

Number of licenses to dealers conveying milk by carriages or otherwise for the purpose of sale .	170
Number of registration of store keepers engaged in the sale of milk	96
Total number of licenses and registrations .	266
Received for licenses and registrations . . .	$133.00

INSPECTION.

It is the duty of the inspector or Collector to enter all places where milk is stored or kept for sale, and take samples for analysis. It is the custom of the Inspector to take samples from wagons and stores in about the same proportion. There are also many samples brought in by citizens which are analyzed free of charge.

In most instances where milk taken from stores has not been up to the legal standard, warnings have been issued, and in almost every case they have caused an improvement in the quality of milk sold. It is the custom to pay for milk taken from stores, but not for that taken from wagons.

Total number of milk inspections . .	3405
Total number of warnings sent . . .	64

The statutes provide penalties:

For neglecting or refusing to license or register for sale of milk.

For selling or exposing for sale, adulterated milk, milk to which water or any foreign substance has been added, milk not of standard quality, milk produced from sick or diseased cows, or milk produced from cows fed on the refuse of distilleries.

For selling, or offering for sale, as pure milk, milk from which the whole or any part of the cream has been removed.

For selling skimmed milk, unless from cans or other vessels marked as required by statute.

For selling, exposing for sale, or possessing with intent to sell, milk or skimmed milk which is not of standard quality, *i. e.*, containing less than thirteen per cent. of milk solids, in the case of whole milk; or less than nine and three-tenths per cent. of milk solids, exclusive of fat, in case of skimmed milk, except in the months of April, May, June, July and August, when whole milk shall contain not less than twelve per cent., of solids, nor less than nine per cent. of solids not fat, nor less than three per cent. of fat.

For obstructing in any manner the Milk Inspector or his assistants, in the performance of their duties.

For the sale, or exposure for sale, as cider vinegar, vinegar which is not made exclusively of apple cider.

For the sale, or exposure for sale, of vinegar containing any artificial coloring matter, or containing any preparation of lead, copper, sulphuric acid or any ingredient injurious to health.

For the sale of any vinegar not of standard quality, *i. e.*, containing less than four and one-half per cent. of absolute acetic acid, or, in the case of cider vinegar, of cider vinegar solids.

It is the duty of the Inspector to make complaint for any of the offences thus enumerated, which may be brought to his notice as a result of his analysis of samples, or on the information of any

person who lays before him satisfactory evidence upon which to sustain such complaint.

STANDING OF MILK.

The following is the average standing of the samples of milk analyzed each month:

TOTAL SOLIDS.

	From Wagons.	From Stores.
January . .	13.56 per cent.	13.57 per cent.
February . .	13.32 "	13.45 "
March . .	13.04 "	13.67 "
April . .	13.31 "	13.00 "
May . . .	13.50 "	13.10 "
June . . .	12.92 "	12.31 "
July . . .	12.57 "	12.56 "
August . .	12.70 "	13.01 "
September . .	13 02 "	13.32 "
October . .	13 46 "	13.22 "
November . .	13.48 "	13.27 "
December . .	13.51 "	13.26 "

SUPPLY.

From reports of milkmen taken at the time of their annual licenses in May, it is estimated that there are sold in Lowell at wholesale, 1026 cans, at retail 2485 cans daily. The cans hold 8 1-2 quarts. The amount for the year amounts to 10,892,695 quarts, or about one-third of a quart to each inhabitant daily, in money value reckoned at 5 1-2 cents per quart, about $6.67 per inhabitant per year, with a volume of business for nearly six hundred thousand dollars, per year.

The supply comes from the following towns

Dracut . . .	831 cans	
Chelmsford . .	641 "	10 cans skimmed milk.
Pelham . .	560 "	40 cans skimmed milk.
Billerica . .	268 "	
Tewksbury . .	259 "	
Westford . .	250 "	
Lowell . .	198 "	
Tyngsboro . .	166 "	
Hudson . .	115 "	
Windham, N. H. .	75 "	
Dunstable . .	70 "	
By Railroad . .	65 "	200 cans skimmed milk and 100 butter milk.
Andover . .	59 "	
Carlisle . .	4 "	

During most of the year there has been an abundant supply of milk. Milk being an article of food, it is of the utmost importance that it should be properly cared for, before it is delivered as well as after, and I take pleasure in saying that as far as I have been able to observe, most of the milkmen take excellent care of their milk, and some are very particular to have everything that comes in contact with it as cleanly as possible.

The value of milk as a cheap food is being realized more every year. Prof. Atwood in Farmers Bulletin, No. 23, issued by the U. S. Department of Agriculture, says "A quart of milk, three-quarters of a pound of moderately fat beef, sirloin steak for instance, and five ounces of wheat flour, all contain about the same amount of nutritive material; but we pay dif-

ferent prices for them and they have different values for nutriment. The milk comes nearest to being a perfect food. It contains all of the different kinds of nutritive materials that the body needs."

At the price milk is sold in Lowell, five cents a quart in Summer, and six in Winter, makes it the cheapest and healthiest food that can be had, taking into account its nutritive value.

VINEGAR.

The quality of vinegar sold in Lowell is fully up to the legal standard.

There have been no complaints, and the samples, with very few exceptions, have been of good quality.

LABORATORY.

The laboratory on the top floor of the new City Hall is supplied with modern appliances for the chemical examination of milk, butter, and water, as well as the biological examination of them.

Any citizen of Lowell can have his milk, water, etc., examined free of charge, and many have availed themselves of this opportunity during the past year.

I desire in conclusion to thank His Honor, the Mayor, for his assistance and advice in the work of the office. Also my collector, Capt. James E. Hill, for his faithful and efficient services.

Respectfully submitted,

(Signed) THOS. O. ALLEN,

Inspector of Milk and Vinegar.

Laws Relating to the Inspection and Sale of Milk.

(*Chapter 57, Public Statutes.*)

APPOINTMENT OF MILK INSPECTORS.

SECTION 1. The mayor and aldermen of cities shall, and the selectmen of towns may, annually appoint one or more persons to be inspectors of milk for their respective places, who shall be sworn before entering upon the duties of their office.

Each inspector shall publish a notice of his appointment for two weeks in a newspaper published in his city or town, or, if no newspaper is published therein, he shall post up such notice in two or more public places in such city or town.

MILK INSPECTORS' DUTIES.

SECT. 2 (as amended by sect. 1, chap. 318, Acts of 1886). Such inspectors shall keep an office and shall record in books kept for the purpose the names and places of business of all persons engaged in the sale of milk in their city or town. Said inspectors may, with the approval of the mayor or the selectmen, employ suitable persons to act as collectors of samples, who shall be sworn before entering upon their duties. Said inspectors, or the collectors employed and qualified as aforesaid, may enter all places where milk is stored or kept for sale, and all carriages used for the conveyance of milk, and the said inspectors or the collectors may take samples for analysis from all such places or carriages, and at the same

time a portion of each sample so taken, shall, if the person taking the same be requested so to do, be sealed and delivered to the owner or person from whose possession the same is taken and a receipt given therefor to the person taking the same.

The inspectors shall cause the samples of milk so taken to be analyzed or otherwise satisfactorily tested, the results of which analysis or test they shall record and preserve as evidence. The inspectors shall receive such compensation as the mayor and aldermen or selectmen may determine.

LICENSING OF MILK PEDDLERS.

SECT. 3. In all cities, and in towns in which there is an inspector of milk, every person who conveys milk in carriages or otherwise for the purpose of selling the same in such city or town, shall annually, on the first day of May, or within thirty days thereafter, be licensed by the inspector or inspectors of milk of such city or town to sell milk within the limits thereof, and shall pay to such inspector or inspectors fifty cents each to the use of the city or town. The inspector or inspectors shall pay over monthly to the treasurer of such city or town all sums collected by him or them. Licenses shall be issued only in the name of the owners of carriages or other vehicles, and shall for the purposes of this chapter be conclusive evidence of ownership. No license shall be sold, assigned, or transferred. Each license shall record the name, residence, place of business, number of carriages or other vehicles used, name and residence of every driver or other person engaged in carrying or selling said milk, and the number of the license. Each licensee shall before engaging in the sale of milk cause his name, the number of his license, and his place of business to be legibly placed on each outer side of all carriages or vehicles used by him in the conveyance and sale of milk, and he shall report to the inspector or inspectors any change of

driver or other person employed by him which may occur during the term of his license. Whoever, without being first licensed under the provisions of this section, sells milk or exposes it for sale from carriages or other vehicles, or has it in his custody or possession with intent so to sell, and whoever violates any of the provisions of this section, shall for a first offence be punished by fine of not less than thirty nor more than one hundred dollars; for a second offence by fine of not less than fifty nor more than three hundred dollars; and for a subsequent offence by fine of fifty dollars and by imprisonment in the house of correction for not less than thirty nor more than sixty days.

REGISTERING OF MILK DEALERS.

SECT. 4. Every person before selling milk or offering it for sale in a store, booth, stand, or market-place in a city or in a town in which an inspector or inspectors of milk are appointed, shall register in the books of such inspector or inspectors, and shall pay to him or them fifty cents to the use of such city or town; and whoever neglects so to register shall be punished for each offence by fine not exceeding twenty dollars.

PENALTY FOR SELLING ADULTERATED, DISEASED OR POOR MILK.

SECT. 5 (as amended by sect. 2, chap. 318, Acts of 1886). Whoever, by himself or by his servant or agent, or as the servant or agent of any other person, sells, exchanges or delivers, or has in his custody or possession with intent to sell or exchange, or exposes or offers for sale or exchange, adulterated milk, or milk to which water or any other foreign substance has been added, or milk produced from cows fed on the refuse of distilleries, or from sick or diseased cows, or milk not of good standard quality, shall, for a first offence, be punished by fine of not less than fifty nor more than two

hundred dollars; for a second offence, by fine of not less than one hundred nor more than three hundred dollars, or by imprisonment in the house of correction for not less than sixty days, and for a subsequent offence by fine of fifty dollars and by imprisonment in the house of correction for not less than sixty nor more than ninety days.

PENALTY FOR SELLING MILK FROM WHICH CREAM HAS BEEN REMOVED.

SECT. 6. Whoever by himself or by his servant or agent. or as the servant or agent of any other person, sells, exchanges, or delivers, or has in his custody or possession with intent to sell or exchange, or exposes or offers for sale as pure milk, any milk from which the cream or a part thereof has been removed, shall be punished by the penalties provided in the preceding section.

HOW SKIMMED MILK MAY BE SOLD.

SECT. 7 (as amended by sect. 7, chap. 352, Acts of 1885, and by sect. 1, chap. 398, Acts of 1896). No person, by himself or his agents, shall sell, exchange or deliver, or have in his custody or possession, with intent to sell, exchange or deliver, milk from which the cream or any part thereof has been removed, unless in a conspicuous place upon every vessel, can or package of more than two quarts capacity from or in which such milk is sold, exchanged or delivered, the words "Skimmed Milk," are distinctly marked in plain, uncondensed gothic letters on a light ground, and to be on the vessel, can or package itself, and not upon a detachable label or tag; and unless in a conspicuous place upon every vessel, can or package of two quarts or less capacity from or in which such milk is sold, exchanged or delivered, the words "Skimmed Milk," are distinctly marked in plain, uncondensed gothic letters, said marking to be in dark letters on a light ground, and to be either on the vessel, can or package itself, or upon a detachable label

or tag. Whoever violates the provisions of this section shall be punished by the penalties provided in section five.

PENALTY FOR OBSTRUCTING AN OFFICER OR ASSISTING IN VIOLATION.

SECT. 8 (as amended by sect. 5, chap. 310, Acts of 1884). Any inspector of milk, and any servant or agent of an Inspector who willfully connives at or assists in a violation of the provisions of this chapter, and whoever hinders, obstructs, or in any way interferes with an inspector of milk or any servant or agent of an inspector in the performance of his duty, shall be punished by fine of not less than one hundred nor more than three hundred dollars, or by imprisonment for not less than thirty nor more than sixty days.

MILK STANDARD.

SECT. 9 (as amended by sect. 6 of chap. 352 of the Acts of the year 1885, and by sect. 2 of chap. 318 of the Acts of the year 1886, and by sect. 2, chap. 398, Acts of 1896). In all prosecutions under this chapter, if the milk is shown upon analysis to contain less than thirteen per cent. of milk solids, or to contain less than nine and three-tenths per cent. of milk solids exclusive of fat, or to contain less than three and seven-tenths per cent. of fat, it shall be deemed for the purposes of this act to be not of good standard quality, except during the months of April, May, June, July and August, when milk containing less than twelve per cent. of milk solids, or less than nine per cent. of milk solids exclusive of fat, or less than three per cent. of fat, shall be deemed to be not of good standard quality.

DUTY OF INSPECTOR.

SECT. 10. It shall be the duty of every inspector to institute a complaint for a violation of any of the provisions of this chapter on the information of any person who lays before him satisfactory evidence by which to sustain such complaint.

ADVERTISING CONVICTIONS.

SECT. 11. Each inspector shall cause the name and place of business of every person convicted of selling adulterated milk, or of having the same in his possession with intent to sell, to be published in two newspapers in the county in which the offence was committed.

(*Chapter 352, Acts of 1885*)

SKIMMED MILK STANDARD.

SECTION 8 No person shall sell, exchange or deliver, or have in his custody or possession with intent to sell, exchange or deliver skimmed milk containing less than nine and three-tenths per cent. of milk solids exclusive of fat. Whoever violates the provisions of this section shall be punished by the penalties provided in section five of chapter fifty-seven of the Public Statutes.

(*Chapter 318, Acts of 1886.*)

SEALED SAMPLE GIVEN TO PERSON FROM WHOM MILK IS TAKEN.

SECTION 3. If the said (milk) inspector or collector after being so requested shall refuse or neglect to seal and deliver to the owner or person from whose possession the same is taken, as provided in section one of this act, a portion of the sample taken as aforesaid, no evidence shall be received in any court of the results of the analysis or test of the same, which may have been recorded and preserved as aforesaid.

SECT. 4 (as amended by sect. 3, chap. 398, Acts of 1896). Whoever makes, causes to be made, uses or has in his possession any imitation or counterfeit of any seal used by any inspector of milk, collector of samples or other official engaged in the inspection of milk, and whoever changes or in any way tampers with any sample taken or sealed as provided in section two, shall be punished by a fine of not less than one hundred dollars and by imprisonment in the house of correction not less than three nor more than six months.

(*Chapter 425, Acts of 1894*)

SEALED SAMPLE GIVEN TO MILK PRODUCER.

No producer of milk shall be liable to prosecution on the ground that the milk produced by him is not of good standard quality, unless the milk alleged not to be of such quality was taken upon the premises or while in the possession or under the control of the producer by an inspector of milk or by the agents of the diary bureau or state board of health, or collector of samples duly authorized by such inspector, and a sealed sample of the same given to the producer.

Chapter 264, Acts of 1896.

SELLING CANNED MILK.

SECTION 1. No person shall sell, or offer for sale or exchange, in hermetically sealed cans, any condensed milk or condensed skimmed milk, unless in cans which are distinctly labelled with the name of the person or company manufacturing said condensed milk or skim milk, the brand under which it is made, and the contents of the can.

SECT. 2. Condensed milk sold from cans or packages not hermetically sealed shall be branded or labelled with the name of the manufacturer.

SECT. 3. Any person violating the provisions of this act shall be subject to the same penalties as for the adulteration of milk.

(*Chapter 41, Acts of 1893.*)

BEING ENACTED AS FOLLOWS: —

Nothing in section two of chapter ninety-eight of the public statutes, or acts amendatory thereto shall be held to prohibit the wholesale or retail sale or delivering of milk on the Lord's Day.

Approved Feb 23, 1893.

ANNUAL REPORT

OF THE

SUPERINTENDENT OF STREETS

OF THE

CITY OF LOWELL,

FOR THE YEAR 1896.

LOWELL.
SUNDAY PRESS PRINT, FISKE BUILDING,
1897.

CITY OF LOWELL.

IN BOARD OF ALDERMEN, February 9, 1897.

Received and ordered on file; sent down for concurrence.

GIRARD P. DADMAN, City Clerk.

IN COMMON COUNCIL, February 16, 1897.

Received and ordered on file in concurrence.

FRANK N. OWEN, Clerk.

REPORT.

To His Honor the Mayor and Gentlemen of the City Council of the City of Lowell:

In accordance with the requirements of the city ordinances, I hereby most respectfully submit the following report of the departments under my charge, viz: Roads and Bridges, Pawtucket Bovlevard, Paving, Street Watering, and Sewers and Drains, for the year ending December 31, 1896.

ROADS AND BRIDGES.

General Statement of Receipts and Expenditures.

Receipts:

Appropriation	$100,000.00
Transferred from reserved fund	35,000.00
Transferred from paving	10,989.19
Transferred from schools	8,000.00
Transferred from paupers	2,000.00
Transferred from interest	854.17
Transferred from corporation tax	4,823.67
Received from sidewalk assessments	3,826.59
Receipts from all other sources	14,825.73
Total receipts	$175,269.35

EXPENDITURES:

Salary of superintendent	$ 2,000.00
Salary of city engineer	2,700.00
Labor as per pay roll	109,134.68
Land, damages, etc	7,489.58
Hay, grain, etc	10,129.24
Lumber, stone, brick, cement, etc	24,746.65
Horses, carriages, harnesses, etc	3,247.04
Hardware, tools, etc	5,846.90
Fuel	822.33
Sundries	9,152.93
Total	$175,269.35

STREETS LAID OUT AND ACCEPTED IN 1896.

STREETS.	BETWEEN WHAT STREETS.	LENGTH IN FEET.
Boynton	Bridge and Hildreth	1280.5
Chase	From northerly end of street formerly acceepted to Whipple street	140.5
Fernald	From Westford street to land of Samuel Horn	275.0
Fifth ave	Mt. Grove and Moody	1340.0
Foster	Westford and Princeton	382.6
Kidder	Crosby and Gorham	568.2
McKinley ave	Stevens and Roylston ave	494.4
Robert	Fifth ave. and Sixth ave	300.0
Rose ave	McKinley ave. and West Forest	349.5
Roylston ave	McKinley ave. and West Forest	348.0
Sidney	From Moore street southerly	630.2
Sixth ave	Moody and Mammoth road	1817.0
State	From Moore street southerly	500.0
Townsend ave	Pawtucket boulevard and Varnum ave.	1862.5
Upham	From Chelmsford street westerly	315.2
Victoria	From Chelmsford street westerly	262 8
	Total	10866.4

Number of miles of accepted streets, Jan. 1, 1896	117.73
Number of miles of streets accepted in 1896	2.06
Number of miles of accepted streets, Jan. 1, 1897	119.79

STREETS GRADED.

STREETS.	STREETS.
Beacon	Gibson
Billings	Gorham
Boynton	Hale
Cabot	Hall
Canton	Harvard
Chelmsford	Hudson
Clare	Humphrey
Coburn	Hutchinson
Congress	June
Cosgrove	Lamb
Crowley	Lawrence
Cushing	Lincoln
Durant	London
Eighteenth	Mammoth road
Fay	Maple
Fernald	Marlborough
Fifth avenue	Middlesex
Fort Hill avenue	Midland
Foster	Moore

STREETS GRADED.—Concluded.

STREETS.	STREETS.
Mt. Grove	Smith
Mt. Hope	South Hastings
Nineteenth	South Loring
Parkview avenue	South Walker
Pawtucket	Stedman
Pine	Stevens
Pleasant	Tenth
Powell	Thorndike
Princeton	Warwick
Queen	Washington
Rogers	West Eleventh
Royal	Westford
Sargent	Wilder
School	Wood.
Sheldon	Total, 68.
Sixth avenue	

MACADAMIZING.

STREETS.	BETWEEN WHAT STREETS.
Andover.....	Nesmith and Harrison.
Andover.....	High and Concord.
Andover.....	Park and estate of Hoyt and Shedd.
Broadway.....	Dutton and Wilson's coal yard.
Eighteenth....	Bridge and Beacon.
Marlborough..	Westford and Pine.
May.....	Topped Dressed and Rolled between Twelfth and Thirteenth streets.
Merrimack....	Cabot and Pawtucket.
Moody.....	At the new bridge, about 400 feet.
Princeton.....	At Livingston avenue, about 200 feet.
Thorndike.....	Hale and Davis corner.
Westford.....	Chelmsford and Windsor.

STREETS WIDENED AND STRAIGHTENED.

STREETS.		LENGTH IN FEET.
Chelmsford...	Straightened from Crescent street to town line.....	4049.3
Pawtucket...	Widened and grade established from first angle westerly of Merrimack street to Northern canal.....	512.92
Rogers.....	Straightened near junction of Haines avenue.....	290.0
Stedman....	Widened and straightened from Westford street to town line.....	2623.0
	Total.....	7475.22

SIDEWALKS.

STREET.	BETWEEN WHAT STREETS.	LIN. FT. CORNER STONE.	LIN. FT. EDGE-STONE.	SQ. YDS. CON-CRETE.
Aiken	West side, front premises Pierre Z. Hebert		70.4	
Billings and Barker avenue	South side, East side		31.9	
Bridge	East side, front premises Margaret A. Manning		49.0	
Burtt	Both sides, Westford and Pine	18.8	1552.0	
C	North side, Powell and Puffer	37.2	931.7	1294.8
Cabot	West side, Hall and Cheever	9.7	393.6	
Cabot	East side, front mill No. 10 of Tremont & Suffolk mills.		145.1	
Canton	West side, from premises Findlay Stevenson			168.1
Chapel	East side, front premises Elida Blaisdell		88.2	
Clare	West side	9.8	683.6	
Coburn	East side, from sidewalk formerly laid to W. Sixth st.	10.4	344.7	133.8

SIDEWALKS.—Continued.

STREET.	BETWEEN WHAT STREETS.	LIN. FT. CORNER STONE.	LIN. FT. EDGE-STONE.	SQ. YDS. CON-CRETE.
Coburn	West side, from sidewalk formerly laid to W. Sixth st.	10.5	834.9	596.3
Coolidge	West side, front premsses Damas H. Laporte		49.0	
Cross	South side, front premises Cornelius Shanahan			66.2
Crowley	Both sides	36.2	1118.6	
Eleventh	South side, front premises Fifth Street Baptist church		47.4	41.3
Fernald	Both sides, from Westford southerly	18.8	510.5	257.8
Fletcher	West side, front premises Tremont & Suffolk mills	10.7	201.3	
Fort Hill avenue	West side, from sidewalk formerly laid to Rogers street.	5.8	574.5	61.1
Foster	East side, Westford and Pine, where sidewalk was not laid.		636.6	
Gibson	West side, Westford and 269 feet southerly		268.0	163.3
Hale	North side, Howard and Grand		302.7	

SIDEWALKS.—CONTINUED.

STREET.	BETWEEN WHAT STREETS.	LIN. FT. CORNER STONE.	LIN. FT. EDGE-STONE.	SQ. YDS. CON-CRETE.
Hall	North side, front premises Pierre Z. Hebert	9.9	85.4	
Hall	South side, Coolidge and Aiken	9.6	200.7	
Humphrey	Both sides, Methuen and Nineteenth	37.2	1815.8	2389.5
Lincoln	West side, from bridge over River Meadow Brook easterly to sidewalk already laid		118.2	
Livingston avenue	East side, northerly line of premises S. A. Scripture and Princeton street	10.0	591.2	
Methuen	East side, front premises Fifth Street Baptist church		47.4	41.3
Nesmith	West side, front premises Thomas Costello		143.3	
Nineteenth	North side, Willard and Beacon	10.0	679.4	
Pawtucket	West side, Pawtucket canal and angle west of Mer'k st.		588.1	
Pine	South side, front Highland school house lot		301.2	199.1

SIDEWALKS.—CONTINUED.

STREET.	BETWEEN WHAT STREETS.	LIN. FT. CORNER STONE.	LIN. FT. EDGE-STONE.	SQ. YDS. CON-CRETE.
Pleasant	West side, Sherman and Rogers	20.1	542.2	
Pond	North side, Concord and Pleasant			77.4
Princeton	South side, Wilder and South Canton	18.7	433.9	60.3
Princeton	South side, front premises Cleveland J. Cheney		42.5	
Rock	North side, front Willie street, westerly		61.9	
Rogers	South side, Concord river bridge and Boylston street	213.6	3724.6	
St. James	North side, front premises Thos. J. Lynch		72.7	
School	West side, Broadway and N. & L. R. R.	66.1	733.7	
Shaw	South side, School and South Loring	9.8	566.5	
So. Canton	East side, Westford and Princeton		382.4	234.0
Stevens	West side, from sidewalk formerly laid to Pine street	8.9	487.6	

SIDEWALKS.—CONTINUED.

STREET.	BETWEEN WHAT STREETS.	LIN. FT. CORNER STONE.	LIN. FT. EDGE-STONE.	SQ. YDS. CON-CRETE.
Swift	South side, Lawrence and Whipple, where sidewalk was not already laid		377.2	
Twelfth	South side, Bridge and easterly line premises Geo. H. Taylor and M. K. Tenney			278.5
Warwick	West side, Shaw and B.	17.8	817.8	
Westford	Both sides, from Foster to east entrance to Tyler park where sidewalks were not laid	65.8	936·2	
West Sixth	South side, front premises estate Ann Thomas		50.3	
Wilder	East side, front premises Thomas J. McDonald		108.2	
Mammoth road	Easterly side, Seventh avenue northerly			175.9
	Total	628.2	20126.0	2565.4

CONCRETE SIDEWALKS REPAIRED.

STREETS.	LOCATION.	SQ. YDS.
Adams	North side	8.8
East Merrimack	North side, near Bridge street	18.5
Fifth	North side	28.3
First	North side, near Bridge street	47.7
Fourth	North side	31.2
Fourth	South side	88.3
Franklin	South side	31.0
Grove	South side	65.3
Grove	North side, near School street	8.1
Loring	West side, at Hood's block	42.5
Middlesex	North side	10.3
Mt. Washington	East side	10.0
Read	West side	37.4
Read	East side	45.4
Salem	North side	26.5
Stevens	West side	26.9
Walker	East side	15.5
West Eleventh	Both sides	45.0
Westford	South side	11.0
Westford	North side, at Hood's block	61.5

CONCRETE SIDEWALKS REPAIRED.—Continued.

STREETS.	LOCATION.	SQ. YDS.
Westford	South side, at Fernald street	16.7
Willie	East side	61.6
Willie	West side, near Rock street	31.9
Myrtle	East side	59.3
	Total	828.7

MOODY ST. BRIDGE
LOOKING DOWN THE RIVER.

SIDEWALKS TOP DRESSED.

STREETS.	LOCATION.	SQ. YDS.
Abbott	South side, near Lawrence street	10.9
Agawam	East side, between Barrington and Moore streets	206.1
Agawam	West side, between Barrington and Moore streets	53.3
Andover	North side, from Park street easterly	161.7
Branch	South side	160.2
Branch	North side	58.1
Broadway	South side	40.9
Carlton	East side	23.6
Central	East side, between Prescott and Warren streets	50.2
Central	East side, between Church and Tyler streets	176.9
Church	South side	2.4
Coburn	East side	33.9
Concord	West side, near Andover street	420.1
Coral	Both sides	600.7
Davidson	West side, near East Merrimack street	28.9
Dover	West side	20.4
Dover	East side	5.8
Fitth	South side	145.5

SIDEWALKS TOP DRESSED.—Continued.

STREETS.	LOCATION.	SQ. YDS.
Fourth	South side	297.8
Fourth	North side	74.8
Grand	at Westford street	32.7
Grand	West side	7.3
Grove	North side, between School and Coral sts.	134.4
Highland	South side	27.7
Howard	at Westford street	31.6
Hurd	North side, front St. Paul's church	123.9
Lakeview ave.	North side, near Bridge street	284.6
Lakeview ave.	South side, near Bridge street	153.9
Loring	West side	23.2
Market	South side, between Fenwick and Adams street	255.5
Market	North side	44.2
Middlesex	North side, at Marston building	56.1
Middlesex	South side, near Grand street	609.3
Middlesex	North side, between McIntire and Carlton streets	329.7
Mt. Washington	Both sides	622.2
Nesmith	West side, at Porter street	24.3

SIDEWALKS TOP DRESSED.—Continued.

STREETS.	LOCATION.	SQ. YDS.
Oak	North side	88.3
Park	East side	164.9
Pleasant	West side	268.5
Pleasant	East side	30.5
Queen	West side	7.3
Read	East side	61.6
Salem	North side	419.4
School	West side, at Westford street	24.9
S. Loring	West side	109.8
Walker	East side, between Branch and Westford streets	413.9
Walker	West side, between Branch and Westford street	497.4
West Eleventh	at Bridge street	114.8
Westford	South side, at Burtt street	23.9
Westford	South side, at Fernald street	58.8
Wilder	East side, at Grove street	30.1
Willie	East side	109.0
Willow	East side	14.9

SIDEWALKS TOP DRESSED.—Continued.

STREETS.	LOCATION.	SQ. YDS.
Worthen	Both sides, between Merrimack and Market side	28.3
Myrtle.....	East side, ...	396.4
	Total.....	8195.5

CONCRETE CROSSINGS.

STREETS.	LOCATION.	SQ. YDS.
Bellevue	At Westford street	32.4
Bratton ave	At Coburn street	13.5
Burtt	At Westford street	34.4
Cushing	At Fletcher street	36.3
East Burnside	At Coburn street	12.5
Fernald	At Westford street	23.5
Gates	At Westford street	33.1
Grove	At School street	40.4
Harvard	At Nicolette street	31.1
Holyrood ave	At Hovey street	43.3
Hovey	At Parkview avenue	33.1
L	At Coburn street	13.2
Livingston ave	At Princeton street	42.2
Mansur	At Parkview avenue	41.1
Mansur	At Wentworth avenue	56.7
Methuen	At Beacon street	47.8
Parkview ave	At Hovey street	41.1
Princeton	At Windsor street	43.3
Princeton	At Windsor street	31.7
Rogers	At Boylston street	35.0

CONCRETE CROSSINGS.—Continued.

STREETS.	LOCATION.	SQ. YDS.
School	At Westford street	40.0
Troy	At Stevens street	29.8
Troy	At Harvard street	33.3
Twelfth	At July street	47.6
Twelfth	At July street	46.7
Windsor	At Princeton street	46.7
	Total	929.8

GRANITE CROSSINGS.

STREETS.	STREETS.
Across Chelmsford St. at Foster St.	" Plain St. at Chelmsford St.
" Cumberland Rd. at Lilley Ave.	" Princeton St. at Canton St.
" D St. at So. Walker St.	" School St. at C St.
" Dalton St. at Lilley Ave.	" Sherman St. at Pleasant St.
" Hale St. at Tiffany St.	" Smith St. at Shaw St.
" Lincoln St. at Haworth & Watson's Shop.	" So. Canton St. at Princeton St.
" Mammoth Road at Seventh Ave.	" Spaulding St. at C St.
" Methuen St. at Eleventh St.	Two across Moody St. at Pawtucket St.
" Midland St. at Chelmsford St.	Across Stevens St. at Westford St.
" Mt. Vernon St. at Varney St.	" Thirteenth St. at June St.
" Nineteenth St.	" Thorndike St. at C. I. Hood's.
Two Across Pawtucket St. at Moody St.	" Thorndike St. at Congress St.
Across Pine St. at Highland School.	" Windsor St. at Westford St.

BRICK CROSSINGS.

STREETS.	STREETS.
Across Andover St. at High St.	Two across Andover St. at Foot Hill Ave.
" Andover St. at Harrison St.	

PAVING.

FINANCIAL ACCOUNT.

RECEIPTS.

Balance undrawn January 1, 1896	$ 2,103.56
Loan	25,000.00
Received for Paving Blocks	10.05
	$27,113.61

EXPENDITURES.

Sundries	$16,164.37
Transfers	10,949.24
	$27,113.61

GRANITE PAVING.

STREETS.	LOCATION.	SQ. YDS.
East Merrimack	At Alder St.	368.6
Mt. Vernon	Between Broadway and Rock Sts.	2138.4
School	Between Broadway and N. & L. R. R.	2827.8
	Total	5334.8

REPAVING.

STREETS.	LOCATION.	SQ. YDS.
Bridge	At Sixth St.	412.8
Central	In part between Market and Appleton Sts	2321.0
Gorham	Between Middlesex and Union Sts	1943.1
Lakeview Ave.	At Front St	191.1
Middlesex	In part between Central and Thorndike Sts	1276.9
Prescott	South side, between Central and Merrimack Sts	547.6
Western Ave.	From R. R. Crossing to freight depot.	2046.8
	Total	8739.3

BRICK PAVING.

LOCATION.	SQ. YDS.
On Moody Street bridge	1977.0

GUTTER PAVING.

STREETS.	STREETS.
Billings	Nineteenth
C	Park
Canton	Parkview Ave.
Chapel	Perry
Charles	Pond
Congress	Powell
Eighteenth	Princeton
Foster	Rogers
Gibson	Royal
Hale	Sargent
Harvard	Sheldon
Holywood Ave.	South Loring
Hutchinson	South Walker
June	Thorndike
Laurel	Twelfth
Liberty	Warwick
Livingston Ave.	Wentworth Ave.
Mammoth Road	West Eleventh
Marlborough	Windsor

Number of streets, 37.
Number of miles of gutters paved, 7.

CONCRETE PAVEMENT REPAIRED.

Hard Top Dressing.

STREETS.	LOCATION.	SQ. YDS.
Mammoth Road	At Pawtucket bridge.....	106.1
Pawtucket.....		139.1
Pawtucket.....		1037.1
Wilder.....	West side, at Princeton St.....	12.8
	Total.....	1295.1

PERSONAL PROPERTY.

Schedule of Personal Property belonging to the Department of Roads and Bridges December 31, 1896:

10 axes	$ 7 50	2 carriage boots	2 00
4 anvils	24 00	1 pair climbing spurs	1 25
2 adze	2 50	150 bushels corn	112 00
1 ash sifter	75	6 coal stoves	24 00
2 blanket chests	10 00	1 bbl. cylinder oil	60 00
100 blankets	500 00	10 old collars	20 00
150 bundles broom stuff	7 50	115 old pick handles	11 50
2 bridge augurs	1 50	200 old picks	60 00
2 packages bolts	13 50	216 new picks	162 00
1 bit stock and bits	2 50	2 hand rollers	40 00
2 batteries	40 00	4 sets dump cart harnesses	100 00
1 pair bolt cutters	1 00	67 lantern globes	4 02
53 horse brushes	83 00	17 double sleds	765 00
62 curry combs	15 50	3 derricks and rigging	500 00
62 cards	6 20	3 drilling spoons	75
1 carriage cushion	1 00	1 dualin heater	75
4 cross cut saws	4 00	24 sets double harnesses	1,000 00
3 clocks	3 00	4 driving sleighs	200 00
12 coal hods	6 00		

PERSONAL PROPERTY.—Continued.

7 buggies and wagons	$ 600 00	5 driving horses	$ 800 00
6 driving harnesses	120 00	4 horse covers	10 00
25 double carts	2,500 00	50 halters	50 00
15 boxes exploders	30 00	5 hay forks	2 50
3 forges and tools	150 00	1 hand cart	20 00
46 feed baskets	46 00	2 hay cutters	15 00
1 feather duster	2 50	32 crow bars	32.00
6 fire pails	3 00	256 round shovels	153 60
200 feet fire hose	1 00	10 iron rakes	5 00
2 feed boxes	8 00	12 wood mauls	12 00
2 fly nets	6 00	33 hand drills	6 50
300 lbs. flat iron	9 00	22 stone hammers	44 00
2 sets falls	10 00	24 iron pails	7 20
1 grindstone	6 00	145 snow shovels	145 00
100 grade stakes	50	16 long handle shovels	16 00
8 bottles Gray's lotion	4 00	199 ft. steel drills	150 00
4 grade lines	40	45 stone wedges	45 00
25 grub axes	15 00	4 spirit levels	4 00
12 hammer handles	3 00	4 frost wedges	4 00
73 hoes	38 00	10 frost hammers	20 00
35 tons hay	630 00	12 hammer handles	3 00
37 draught horses	7,400 00	12 paving hammers	6 00

PERSONAL PROPERTY.—CONTINUED.

4 hand hammers.....	2 00	1 engine and boiler 1 stone crusher 1 crusher building....	6,500 00
5 iron mauls.....	5 00		
29 bull points.....	4 00	485 ft. edgestone.....	155 20
128 lanterns.....	51 20	269 ft. flagging.....	107 60
2 boxes dualin,.....	25 00	80 ft. corner stone....	56 00
10 stone forks	5 00	6250 ft. brow stone...	150 00
6 sighting sticks	4 00	170 tons crushed stone	238 00
2 iron squares.....	1 50	3000 ft. spruce plank.	45 00
4 trowels	2 40	1300 ft. ash plank....	35 00
13 snow plows	130 00	448 ft. birch plank...	4 00
18 stone chains	35 00	311 ft. whitewood....	8 00
5 spreaders	5 00	2832 ft. strip furring..	25 00
7 whiffletrees.....	3 50	150 ft. 3-4 in. rubber hose.....	15 00
4 hand saws.....	3 00		
1 tape measure, (50 ft)	2 50	200 ft. 3-4 in. rope...	5 00
6 oil cans	3 00	4 bbls. paint.....	600 00
1 60 gallon oil tank..	8 00	50 gallons kerosene oil	4 00
11 sparrow barrels, 6 sparrow carts	72 00	1 barrel machine oil..	60 00
59 sparrow brushes..	35 00	3 1-2 bbls. axle grease	100 00
11 sparrow brooms..	6 50	1 steam road roller and tools.....	5,000 00
		Total.....$	30,437 32

MOODY ST. BRIDGE.
LOOKING WEST.

BRIDGES.

THE FOLLOWING IS A LIST OF BRIDGES IN THE ACCEPTED STREETS, AND BY WHOM MAINTAINED.

STREET.	LOCATION.	MATERIAL.	MAINTAINED BY
Chelmsford	B. & M. R. R. Co. (Lowell System)	Iron	Boston & Maine Railroad Co.
Hale	B. & M. R. R. Co. (Lowell System)	Iron	Boston & Maine Railroad Co.
Wilder	B. & M. R. R. Co. (Lowell System)	Wood	Boston & Maine Railroad Co. and City
Church	Concord river	Stone	City.
E. Merrimack	Concord river	Iron and granite	City. Built in 1894.
Lawrence	Concord river	Wood	City.
Rogers	Concord river	Stone	City.
E. Merrimack	Eastern Canal	Wood	Locks and Canals Co.
Bridge	Eastern Canal	Wood	Locks and Canals Co.
Market	Merrimack Canal	Wood	City.
Merrimack	Merrimack Canal	Stone and brick	Locks and Canals Co. and City.

BRIDGES.—CONTINUED.

STREETS.	LOCATION.	MATERIAL.	MAINTAINED BY
Aiken	Merrimack river	Iron	City.
Bridge	Merrimack river	Iron	City.
Cabot	Northern canal	Wood	City.
School	Merrimack river	Iron	City.
Pawtucket	Northern canal	Wood	Locks and Canals Co.
School	Northern canal	Brick and stone	Locks and Canals Co.
Suffolk	Northern canal	Wood	Locks and Canals Co.
Broadway	Pawtucket canal	Wood	Locks and Canals Co.
Central	Pawtucket canal	Wood	Locks and Canals Co.
Pawtucket	Pawtucket canal	Wood	Locks and Canals Co.
School	Pawtucket canal	Wood	Locks and Canals Co.

BRIDGES.—Continued.

STREETS.	LOCATION.	MATERIAL.	MAINTAINED BY
Thorndike	Pawtucket canal	Wood	Locks and Canals Co.
Cambridge	River Meadow brook	Wood	City.
Congress	River Meadow brook	Wood	City.
Gorham	River Meadow brook	Wood	City.
Howard	River Meadow brook	Stone	City.
Lawrence	River Meadow brook	Wood	City.
Lincoln	River Meadow brook	Wood	City.
Newhall	River Meadow brook	Iron	City.
Plain	River Meadow brook	Wood	City. Built in 1894.
Broadway	Western Canal	Stone	City.
Dutton	Western Canal	Wood	City.

BRIDGES.—CONTINUED.

STREETS.	LOCATION.	MATERIAL.	MAINTAINED BY
Hall (private st)	Western canal	Wood	Lawrence Manufacturing Company and Suffolk Mills.
Jefferson	Western canal	Iron	City.
Market	Western canal	Wood	City.
Merrimack	Western canal	Wood	Locks and Canals Co. and City.
Moody	Western canal	Wood	City.
Worthen	Western canal	Wood	City.
Lawrence	Wamesit canal	Wood	Wamesit Power Co.
Moody	Merrimack river	Iron	City. Built in 1896.

GRADE CROSSINGS.

FINANCES.

RECEIPTS.		
Loan	$20,000.00	
		$20,000.00
EXPENDITURES.		
Sundries	$9,364.05	
Land Damages	800.00	
		$10,164.05
Balance undrawn December 31, 1896		$9,835.95

EXTENSION OF MOODY STREET.

FINANCES.

RECEIPTS.

Balance undrawn January 1, 1896.....	$60,327.19	
Transferred from Reserved Fnnd.....	5,000.00	
		$65,327.19

EXPENDITURES.

Sundries.....	$65,312.44	
Transferred to Commons.....	14.75	
		$65,327.19

STREET WATERING.

FINANCIAL ACCOUNT.

RECEIPTS.

Balance on hand, January 1, 1896	$7,139.16	
Received for assessments, 1893	2.50	
Received for assessments, 1894	283.46	
Received for assessments, 1895	2,845.31	
Received for assessments, 1896	7,192.75	
Received from all other sources	135.50	
		$17,598.68

EXPENDITURES.

Labor as per pay rolls	$5,661.44	
Appropriation (Water Works) water	756.00	
Hay, grain, etc	1,959.75	
Sundries	1,858.43	
		$10,235.62
Balance on hand December 31, 1896		$7,363.06

PERSONAL PROPERTY.

Schedule of Personal Property belonging to the Department of Street Watering December 31, 1896:

32 horses	$5,075 00	17 curry combs	$ 4 25
17 sets double harnesses	765 00	17 cards	1 70
4 blankets	10 00	1 coal stove	5 00
1 surcingle	32	1 Stilson wrench	5 00
36 halters	36 00	2 brooms	1 00
25 collars	50 00	8 pails	2 00
4 interfering boots	2 00	1 feed truck	5 00
17 sprinklers	3,825 00	1 claw hammer	50
5 old tubs	250 00	1 cart jack	2 00
2 monkey wrenches	1 50	4 shut-off wrenches	4 00
2 hay forks	2 00	1 pipe wrench	1 00
1 manure fork	75	1 S wrench	1 00
6 neck yokes	6 00	1 hoe	25
4 double carts	400 00	3 scrapers	75
5 rattan brooms	250 00	2 hay hooks	1 00
17 mane brushes	5 66	1 4-quart measure	50
17 horse brushes	25 50	Total	$10,739 68

PERSONAL PROPERTY.

Schedule of Personal Property belonging to the Appropriation for Pawtucket Boulevard December 31, 1896:

34 grass signs	$ 7 82	15 lbs. sheet lead	$ 1 20
11 stone forks	2 75	19 wooden rakes	4 75
22 iron rakes	6 60	1 store house	250 00
12 hoes	3 00	1 shanty	5 00
8 lawn mowers	56 00	3 wheelbarrows	3 00
12 scythes and snaths	15 00	1 grindstone	5 00
22 sickles	5 50	6 brass valves	30 00
3 sod cutters	1 50	8 wooden mallets	2 00
1 wagon jack	75	4 hand sprinklers	4 00
4 manure forks	3 00	1 wooden maul	50
2 chain tongs	10 00	1 rammer	50
6 brooms	2 40	2 whiffletrees	1 50
1 sand screen	75	25 ft. 1-inch rope	75
1 15-ft. spirit level	1 50	2 tree trimmers	4 00
1 pair edging shears	1 50	4 oil cans	1 20
1 tool box	4 00	1 hatchet	50
1 neck yoke	75	2 iron pails	1 00

PERSONAL PROPERTY.—Continued.

2 tin dippers.....	$ 20	1 sprinkling cart.....	$225 00
1 money wrench	40		
4 sighting sticks.....	1 00	Total.....	$664 32

Cost of labor on Boulevard, which was paid out of appropriation for Roads and Bidges; most of this was cleaning off the sand which was left after the recent flood.....	$1,480 51

SEWERS AND DRAINS.

FINANCES.

RECEIPTS.

Appropriation	$20,000 00	
Loans	75,000 00	
Transferred from interest	843 95	
Received from various sources	22,417 25	
		$118,261 20

EXPENDITURES.

Labor as per pay rolls	$81,159 13	
Teaming, material, etc	37,202 07	
		$118,261 20

STREET CATCH BASINS BUILT DURING THE YEAR 1896.

STREETS.	LOCATION.
Beacon.....	West side, 7 ft. north of north line Whitney Avenue.
Billings.....	North side, 301 ft. west of west line Bridge Street.
Billings	South side, 7 ft. west of west line Barker Avenue.
Billings.....	South side, 278 ft. west of west line Bridge Street.
Billings.....	North side, 11.5 ft. west of west line Barker Avenue.
Blossom.....	North side, 12 ft. west of west line Gorham Street.
Blossom	South side, 4 ft. west of west line Gorham Street.
Blossom.....	North side, 3 ft. east of east line Border Street.
Broadway	West side, 139 ft. north of north line Worthen Street.
C.....	North side, 1 ft. west of west line Spaulding Street.
Chelmsford.....	East side, 314 ft. north of south line Plain Street.
Chelmsford.....	North side, 4.3 ft. west of west line Shaw Street.
Chester	West side, 9 ft. north of north line Westford Street.


OAKLAND
SEWER

STREET CATCH BASINS.—Continued.

STREETS.	LOCATION.
Chester	East side, 14 ft. north of north line Westford Street.
Clare	East side, 7 ft. south of south line Sargent Street.
Congress	West side, 3 ft. north of north line Robinson Street.
Congress, Cesspool	South side, 178 ft. west of west line Thorndike Street.
Congress, "	North side, 178 ft. west of west line Thorndike Street.
Congress, "	South side, 132 ft. west of west line Thorndike Street.
Congress, "	North side, 138 ft. west of west line Thorndike Street.
Crowley	West side, 54 ft. south of south line St. James Street.
D	South side, 6.5 ft. west of west line School Street.
D	North side, 5 ft. west of west line School Street.
Decatur Alley	Centre, 15 ft. north of north line French College.
Dummer	North side, 11 ft. west of west line Market Street.
Dummer	South side, 118 ft. east of east line Broadway.
Dummer	South side, 8 ft. west of west line Market Street.

STREET CATCH BASINS.—Continued.

STREETS.	LOCATION.
Dummer	South side, 80 ft. east of east line Lewis Street.
Edson	East side, 15 ft. north of north line Westford Street.
Eighteenth	North side, 235 ft. east of east line Whitney Avenue.
Eighteenth	South side, 238 ft. east of east line Whitney Avenue.
Eighteenth	South side, 5 ft. west of west line Beacon Streer.
Eighteenth	North side, 6.3 ft. south of south line Billings Street.
Fay	North side, 1 ft. east of east line Gorham Street.
Fay	South side, 2 ft. east of east line Gorham Street.
Fay	North side, 3 ft. east of east line Pihl Street.
Fay	South side, 8 ft. west of west line Pihl Street.
Fifth Ave	North side, 7 ft. east of east line Robert Street.
Fifth Ave	North side, 4 ft. west of west line Dunfey Street.
Fort Hill Ave	East side, 260 ft. south of south line Sherman Street.
Fort Hill Ave	West side, 8.5 ft. south of south line Sherman Street.

STREET CATCH BASINS.—CONTINUED.

STREETS.	LOCATION.
Foster	West side, 544 ft. north of north line Pine Street.
Foster	East side, 542 ft. north of north line Pine Street.
Gates	East side, 9 ft. north of north line Sheldon Street.
Gates	West side, 6 ft north of north line Sheldon Street.
Gibson	East side, 12 ft. south of south line Westford Street.
Gibson	West side, 12 ft. south of south line Westford Street.
Gibson	West side, 255 ft. north of north line Pine Street.
Gibson	East side, 254 ft. north of north line Pine Street.
Gorham	East side, 7.5 ft. south of north line Lincoln Street.
Gorham	East side, 538 ft. south of south line Manchester Street.
Gorham	East side, 87 ft. north of south line Manchester Street.
Hampshire, rebuilt	East side, 18 ft. north of north line Hildreth Street.
Harvard	West side, 34 ft. south of south line Troy Street.

STREET CATCH BASINS.—Continued.

Harvard.....	East side, 7 ft. south of south line Troy Street.
Hudson	South side, 145 ft. west of west line Lawrence Street.
Hutchinson	East side, 3.5 ft. south of south line Arthur Street.
Hutchinson	West side, 11 ft. south of south line Arthur Street.
June.....	West side, 9 ft. north of north line Twelfth Street.
Lamb.....	North side, 220 ft. west of west line Eighth Avenue.
Liberty	North side, 252 ft. east of east line Barclay Street.
Lincoln.....	North side, 8 ft. west of west line Gorham Street.
Lincoln	South side, 11 ft. west of west line Gorham Street.
Lincoln	South side, 5 ft. west of west line Border Street.
London	North side, 4 ft. west of west line Gorham Street.
London	South side, 4 ft. west of west line Gorham Street.
Lundberg	North side, 5 ft. west of west line O'Connell Street.
Lundberg	South side, 5 ft. west of west line O'Connell Street.


OAKLAND
SEWER

STREET CATCH BASINS.—CONTINUED.

STREETS.	LOCATION.
Mammoth road....	East side, 197 ft. north of north line Fourth Avenue.
Mammoth road....	West side, 207 ft. north of north line Woodard Avenue.
Maple	South side, 4 ft. west of west line Gorham Street.
Market, replaces old C. B.....	South side, 122 ft. west of west line Palmer Street.
Market, replaces old C. B.....	North side, 295 ft. east of east line Palmer Street.
Market, replaces old C. B.....	North side, 22 ft. west of west line Central Street.
Methuen	North side, 16.5 ft. east of east line Twelfth Street.
Moody.....	East side, 4 ft. south of south line Colonial Avenue.
Moody	West side, 3 ft. south of south line Colonial Avenue.
Moody.....	West side, 16 ft. south of south line Moody Street Bridge.
Mt. Vernon	East side, 112 ft. north of north line Rock Street.
Mt. Vernon.....	West side, 91 ft. north of north line Rock Street.
Nesmith.....	West side 69 ft. south of south line T. Costello's house.

STREET CATCH BASINS.—Continued.

STREETS.	LOCATION.
Nesmith	East side, 51.5 ft. south of south line T. Costello's house.
Nineteenth	North side, 39 ft. east of east line Willard Street.
Nineteenth	South side, 54 ft. east of east line Willard Street.
Nineteenth	South side, 292 ft. east of east line Willard Street.
Nineteenth	North side, 235 ft. east of east line Willard Street.
Nineteenth	South side, 3 ft. west of west line Beacon Street.
Pawtucket	South side, 5 ft. west of west line Moody Street.
Pawtucket	North side, 9 ft. west of west line abutment of bridge over Canal.
Perry	West side, 86 ft. south of south line Pond Street.
Perry	East side, 68 ft. south of south line Pond Street.
Pine	North side, 6.5 ft. west of west line Belmont Street.
Pleasant	West side, 219 ft. south of south line Sherman Street.
Pleasant	East side, 217 ft. south of south line Sherman Street.

STREET CATCH BASINS.—Continued.

STREETS.	LOCATION.
Pond, Settling Basin	Centre, 77 ft. west of west line Perry Street.
Pond.....	South side, 70 ft. west of west line Perry Street.
Pond.....	North side, 68 ft. west of west line Perry Street.
Powell.....	East side, 9.5 ft. north of north line New A Street.
Powell.....	West side, 3.5 ft. north of north line D Street.
Princeton.....	North side, 8 ft. west of east line Livingston Avenue.
Rogers..... ...	North side, 10 ft. east of east line Concord Street.
Rogers.....	North side, 10 ft. east of east line Pleasant Street.
Rogers.....	South side, 5 ft. east of east line Perry Street.
Rogers.....	South side, 199 ft. west of west line Perry Street.
Rogers.....	North side, 199 ft. west of west line Perry Street.
Rogers, Replaces old C. B.....	South side, 126 ft. west of west line Perry Street.
Rogers.....	West side, 62 ft. north of Col. A. Pindar's north line.
Rogers.....	East side, 56.5 ft. north of Col. A. Pindar's north line.

STREET CATCH BASINS.—Continued.

STREETS.	LOCATION.
Rogers	South side, 12 ft. east of west line Hanks Street.
Rogers	North side, 270 ft. east of east line Hanks Street.
Rogers, Cesspool	East side, 44 ft. north of north line Haines Avenue.
Royal	West side, 3 ft. north of north line Sheldon Street.
School	East side, 179 ft. north of north line Burgess Street.
School	West side, 1.5 ft. south of south line Burgess Street.
School	West side, 38 ft. north of north line Liberty Street.
School, Cesspool	East side, 42 ft. east of east line B. & M. R. R. Location.
School, Cesspool	West side, 43 ft. east of east line B. & M. R. R. location.
Shaw	North side, 2 ft. west of west line So. Walker Street.
Shaw	North side, 9 ft. west of west line Hutchinson Street.
Seeldon	South side, 56 ft. west of west line Ware Street.
South Hastings	West side, 422 ft. north of north line Shaw Street.

STREET CATCH BASINS.—Continued.

STREETS.	LOCATION.
South Hastings....	East side, 415 ft. north of north line Shaw Street.
South Loring.....	West side, 184 ft. south of angle.
South Loring.....	East side, 357 ft. south of angle.
South Walker.....	West side, 4.5 ft. south of south line Corner Street.
South Walker.....	East side, 2 ft. north of south line Corner Street.
Twelfth.....	South side, 11 ft. east of west line Wachusett Street.
Twelfth	North side, 1.3 ft. west of east line June Street.
Ward	East side, 280 ft. north of north line Tucker Street.
Ware.....	West side, 3 ft. north of north line Sheldon Street.
Ware.....	West side, 86 ft. north of angle.
Warwick.....	East side, 48 ft. north of north line Corner Street.
Warwick.....	West side, 37 ft. north of north line Corner Street.
Warwick.....	East side, 4 ft. north of north line Shaw Street.
Warwick.....	West side, 6 ft. north of north line Shaw Street.

STREET CATCH BASINS.—Continued.

STREETS.	LOCATION.
Warwick	West side, 60 ft. north of north line, D Street.
West Eleventh....	North side, 222 ft. west of west line Bridge Street.
West Eleventh....	South side, 179 ft. west of west line Bridge Street.
Western Ave.....	North side, 161 ft. west of west line Coram Building.
Western Ave.....	North side, 348 ft. west of west line Coram Building.
Western Ave.....	South side, 349 ft. west of west line Coram Building.
Westford.....	North side, 12 ft. east of east line Sayles Street.
Westford.....	South side, 9 ft. east of east line Foster Street.
Westford.....	North side, 8 ft. east of east line Belmont Street.
Westford, Cesspool	North side, 15 ft. east of east line Wood Street.
Westford, Cesspool	South side, 10 ft. east of east line Wood Street.
Whitney Ave.....	East side, 8 ft. south of south line Eighteenth Street.
Whitney Ave.....	West side, 3 ft. south of south line Eighteenth Street.
Whitney Ave.....	North side, 5 ft. east of east line Whitney Avenue.

STREET CATCH BASINS.—Continued.

STREETS.	LOCATION.
Whitney Ave.....	South side, 1 ft. east of east line Whitney Avenue.
Wilder.....	East side, 299 ft. north of north line Broadway.
Wilder.....	West side, 302 ft. north of north line Broadway.
Wilder.....	East side, 497 ft. north of north line Broadway.
Wilder.....	West side, 501 ft. north of north line Broadway.
Wilder.....	East side, 861 ft. north of north line Broadway.
Wilder.....	West side, 881 ft. north of north line Broadway.
Wilder.....	West side, 1012 ft. north of north line Broadway.
Wilder.....	East side, 36 ft. south of south line Pawtucket Street.
Windsor.....	West side, 41 ft. south of south line Princeton Street.
Windsor.....	East side, 32 ft. south of south line Princeton Street.
Woodward Ave....	North side, 3 ft. west of west line Waterford Street.

PERSONAL PROPERTY.

Schedule of Personal Property belonging to the Sewer Department January 1, 1897:

1 Lidgerwood engine, No. 11,870	$ 900 00
1 Lidgerwood engine, No. 11,876	900 00
1 Lidgerwood engine, No. 10,268	900 00
1 Hoadley engine, No. 1,368	700 00
1 Webb Watson engine	1,000 00
4 sets engineer's tools.	8 00
6 engineer's tool boxes	24 00
2 upright boilers with fixtures and steam pipe	500 00
2 derricks and extra mast with clamps, shackles and guys	500 00
3 submerged pumps	450 00
2 pile drivers	300 00
1 tool house and fixtures	3,000 00
4 horses	600 00
1 Goddard buggy	300 00
1 Concord wagon	$ 100 00
1 sleigh	55 00
3 sleds	120 00
1 truck	50 00
3 dump carts, (single)	150 00
8 blankets	20 00
6 harnesses	200 00
1 robe	18 00
1 roll top desk	30 00
1 table	8 00
6 chairs and mat	36 00
9 wooden rolls, 4x7	9 00
3 wooden rolls, 5x3	2 25
2 small tool houses	40 00
1 blacksmith house	20 00
1 carpenter house	20 00
4 engine houses	80 00
6 batteries for blasting	150 00
8 sets wires for batteries	16 00


OAKLAND SEWER

PERSONAL PROPERTY.—CONTINUED.

5 steam drills and tool, also 327 feet drills	$1,500 00
50,000 feet sewer lumber	800 00
8 marine pumps	100 00
160 ft. large hose for pumps	320 00
100 lbs. dynamite	50 00
5 5-gallon wooden oil-cans	6 50
2 10- gallon wooden oll-cans	3 00
2 10-gallon tin oil-cans	3 00
2 5-gallon tin oil-cans	2 50
1 60-gallon tin oil-tank	7 50
9 steam drill pumps	9 00
758 ft. hand drill steel	189 50
35 drilling spoons	16 50
16 hand saws	9 75
1 saw clamp	1 25
6 cross cut saws	6 00
12 lbs. copper wire	1 20
4 adze	5 00
9 axes	4 80
13 hatchets	$ 12 00
18 packages carriage bolts	18 00
10 spirit levels	10 00
2 steel squares	2 00
6 measuring sticks	3 00
24 plug hammer handles	2 00
24 sledge hammer handles	3 00
10 gallons blue paint	20 00
1 gallon black paint	2 00
2 gallons black asphaltine	2 00
6 paint brushes	2 00
9 claw hammers	4 50
22 boxes 4-feet exploders	44 00
12 boxes 6-feet exploders	21 24
12 boxes 8-feet exploders	24 48
12 boxes 10-feet exploders	27 72
25 padlocks	20 00

PERSONAL PROPERTY.—Continued.

6 feet steam drill packing	$ 75
1 gong	2 50
7 balls bank line	70
1 box repairs for marine pumps	10 00
7 strainers for marine hose	14 00
15 monkey wrenches	11 45
7 mason's trowels	5 00
1 bit stock and 2 bits	1 50
13 calking tools for pipe	6 50
3 plug drill hammers	3 00
3 tape lines	8 00
6 pounds shims and wedges	3 00
25 stone cutters' chisels and points	10 00
1 gallon red paint	2 00
2 sets blacksmiths' tools	20 00
4 anvils	21 00
64 striking hammers	128 00
16 stone hammers	32 00
8 sledge hammers	$ 24 00
2 fiddle blocks	11 00
329 pick axe handles	49 35
25 2 sheave blocks	40 00
8 catch basin dippers	12 00
6 sheathing caps	12 00
7 100 lb. iron mauls	7 00
24 wooden timber mauls	24 00
14 sets shear poles	140 00
1 Trainer transmitter (sewer machine)	3,000 00
14 jack screws	28 00
1 keg 30 penny nails	2 50
1 keg 10 penny nails	2 25
1 keg 40 penny nails	2 50
136 lanterns	54 40
50 red lantern globes	5 00
50 white lanternglobes	5 00
10 dozen wicks	60
4 pairs short legged rubber boots, (old ones)	5 00

PERSONAL PROPERTY.—CONTINUED.

2 pairs long legged rubber boots.....	$ 4 00
30 iron pails.....	15 00
3 rubber hats.....	1 50
30 tag ropes.....	15 00
25 wheelbarrows	25 00
1050 feet 4-ply 3-4 inch hose.....	100 00
1 set branding irons..	2 00
2 sewer traps.....	10 00
13 cement hoes.....	5 20
12 post hole scoops..	12 00
325 round pointed shovels.....	200 00
200 square shovels...	125 00
4000 feet rope (various sizes).....	300 00
800 feet cotton hose..	24 00
150 feet leather hose..	10 00
30 crowbars	30 00
6 spades.....	6 00
10 crabs for shear poles	125 00
36 maul handles.....	9 00
10 tons soft coal.....	$ 60 00
2 barrels cement.....	2 50
100 feet Akron pipe, all sizes.....	12 00
18 bars iron and steel	15 00
175 lbs. scrap iron and steel.....	5 00
8 barrels for water...	8 00
3 old sto es.....	15 00
6 mortar beds.....	6 00
2 sand screens.....	10 00
60 catch basin steps..	7 80
12 edgestone castings.	144 00
5 Concord grates, No. 20.....	35 00
3 balls packing.....	45
1 petticoat lamp.....	20
9 square feet sheet packing.....	1 50
5 lbs. engine packing	2 50
2 12 inch flat files....	90
1 12 inch half round file	45
1 1-2 inch round file.	30

PERSONAL PROPERTY.—Continued.

1 lb. emery	$ 40	2 "Dutchmen" for hydrants	$ 50 00
1 square foot sheet packing, (heavy)	50	1 grub axe	1 00
I work bench	5 00	307 pick	204 50
12 water glasses	1 80	2 boxes steam fittings	15 00
500 brick	4 00	21 large chains	63 00
1 box roller	2 50	150 feet small chains	5 00
1 piper's die stock and plate	18 00	100 lbs. cotton waste,	7 00
300 lbs. old iron plate	2 50	5 steam drill tool boxes	20 00
2 tool boxes for steam boiler	8 00	17 spanner wrenches	8 50
8 prs. pipe tongs	4 50	2 large hose nozzles	25 00
1 pair wooden steps	1 00	16 hydrant wrenches	16 00
11 wheelbarrow wheels	2 75	16 bars steel	12 00
2 1-2 rolls tar paper	2 50	1 bolt clipper	8 00
9 hydrant socket wrenches	8 00	1 set taps and dies	15 00
16 jack bars	3 50	4 sighting sticks	1 00
1 paving ram	3 00	26 sling chains	13 00
3 blacksmith's forges, portable	30 00	7 sets tackle and falls.	42 00
19 tool boxes	190 00	30 gallons kerosene oil	2 10
4 sewer wheelbarrows	4 00	1 neck yoke	50
		37 wooden pails	11 10
		6 oatmeal buckets	3 00

PERSONAL PROPERTY.—Continued.

14 frost wedges.....	$ 7 00	1 carpenter's vise....	$ 10 00
30 hand drills.....	8 00	1 blacksmith's vise...	8 00
1 sprinkling can.....	75	2 water tubs.....	1 00
32 feet plug steel....	4 00	1 hand drill.....	6 00
1 pipe vise	14 00	Total	$20,378 39

TABLE SHOWING THE SEWERS BUILT DURING THE YEAR 1896, LENGTH, SIZE, MATERIAL, WHEN BEGUN AND FINISHED, AND COST.

STREETS.	SIZE AND LENGTH. 18 inch.	15 inch.	12 inch.	10 inch.	MATERIAL.	Cubic Yards Ledge.	Average Depth.	Manholes.	BEGUN.	FINISHED.	COST.	Total Length.
Bellevue (completed)	.....	.....	308	.....	Akron Pipe.	132.5	8.3	2	Sept. 28, 1893.	July 16, 1896.	$ 954.07	539
B	.....	.....	524	.....	Akron Pipe.	.....	9.1	3	May 13, "	May 23, "	744.80	524
Bellevue and Thayer	.....	.....	366.6	.....	Akron Pipe.	290.4	8.3	3	May 18, "	June 8, "	1,709.74	566.6
Boynton	.....	.....	.....	328	Akron Pipe.	53.3	9.2	1	July 24, "	Aug. 15, "	1,015.90	328
Burtt	.....	.....	687	.....	Akron Pipe.	165	8.6	4	July 20, "	Aug. 17, "	1,473.85	681
Broadway	.....	.....	167.5	.....	Akron Pipe.	50.8	11.8	1	June 11, "	July 3, "	745.99	167.5
Branch (rebuilt)	.....	343.5	205.2	.....	Akron Pipe.	.....	9.5	.....	Sept. 24, "	Oct. 2, "	502.74	548.7
Burgess and Grace	.....	.....	248	.....	Akron Pipe.	.....	9.5	2	Dec. 14, "	Dec. 21, "	515.43	248
Clare (completed)	.....	.....	595.4	.....	Portland Pipe.	81	8.5	2	Dec. 5, 1895.	Feb. 22, "	959.95	595.4
Dover (rebuilt)	.....	.....	277	.....	Akron Pipe.	.....	8.5	1	July 6, "	July 20, "	451.71	277
Durant	.....	.....	256	.....	Akron Pipe.	.....	10.2	2	June 13, "	June 23, "	554.78	256
Fernald	.....	.....	261.7	.....	Akron Pipe.	15.5	9	2	June 11, "	June 20, "	431.46	261.7
Fifth Avenue and Robert. 776.6 ft. 45 in. x 30 in. brick	.....	349.5	308	.....	Brick and Pipe.	508.3	13.2	6	June 6, "	Sept. 25, "	14,488.28	1,434.1
Gorham (rebuilt) 371.3 ft. 24 in. pipe	296.2	153	.....	.....	Portland Pipe.	.....	14.8	5	May 25, "	July 18, "	7,395.70	829.5
Hovey and Dalton	.....	.....	474	.....	Akron Pipe.	.....	9.5	2	May 13, "	May 23, "	825.23	474
June	.....	.....	209	.....	Akron Pipe.	.....	11.1	2	June 24, "	July 1, "	420.86	209
Kinsman (rebuilt)	.....	.....	383.4	.....	Akron Pipe.	.....	10.6	3	July 2, "	July 18, "	931.72	383.4
Lincoln and Border. 770 ft. 45 in. x 30 in. brick	.....	.....	.....	.....	Brick.	.....	13.2	3	July 20, "	Nov. 11, "	9,169.97	770
Lundberg	.....	.....	864	.....	Akron Pipe.	.....	10.5	4	Aug. 18, "	Sept. 9, "	1,335.60	864
Moody. 253 ft. 24 in. brick	.....	.....	127	.....	Akron Pipe.	.....	10	1	Sept. 3, "	Sept. 15, "	370.64	153.3
Mammoth Road	.....	.....	177	.....	Akron Pipe.	102.7	10	1	May 18, "	June 9, "	824.45	177
Nineteenth. 77 ft. 48 in. brick	.....	.....	764.6	.....	Brick and Pipe.	271.7	11.6	4	June 11, "	Aug. 12, "	4,267.38	841.6
Oaklands, main. 791 ft. 60 in. brick	.....	.....	.....	.....	Brick.	2521	15.5	4	Nov. 7, "	Unfinished.	28,022.35	791
Windsor	.....	.....	306	.....	Akron Pipe.	19.6	8.5	2	May 28, "	June 3, "	581.85	306
Woodward Avenue	.....	.....	528.7	.....	Akron Pipe.	.....	9.1	2	Sept. 14, "	Oct. 6, "	1,363.76	528.7
Victoria	.....	288.5	.....	.....	Akron Pipe.	14	....	.....	Oct. 28, "	Nov. 11 "	613.82	288.5

SEWERS BUILT DURING THE YEAR 1896.—Continued.

Lineal feet of Sewers laid in 1896	13040 feet or	2.47 miles.
Laid previously		71.30 "
		73.77 "
Deduct lineal feet of Sewers rebuilt	2029.6 feet or	.38 "
Length of Sewers January 1, 1897		73.39 miles.

Bellevue Street Sewer completed. Total length, 539 feet. Total cost, $1816 55.
Clare Street Sewer completed. Total length, 669.4 feet. Total cost, $1532.50.
An OVERFLOW has been built from the Middlesex Street Sewer into Black Brook.

OAKLAND SEWER

REPORT.

To His Honor the Mayor and Gentlemen of the City Council of the City of Lowell:

In accordance with the requirements of the city ordinances, I have the honor to submit the following report of the several departments under my charge for the year ending December 31, 1896. The accompanying schedules give the work in detail done under the general supervision of the Street Department. I have taken the liberty to refer, in addition, to such important changes as have been made during the year, and to recommend new work that, in my judgment, should be undertaken.

PAVING.

Nearly twice as many granite crossings as were laid in 1895 were put in last year. Vitrified brick crossings were laid on Andover Street by way of experiment, and have proved to be a success. Seven miles of gutters have been paved, special attention having been given to the hill streets. The

gutters have been neglected in past years, though they are very important for the proper protection of the streets.

An unusual amount of work was done in laying new edgstones, in all 20,126 feet being put in. There were 628 feet of corner edgestones and 2,389 square yards of concrete laid.

I would recommend that Gorham Street be paved from the Boston & Maine Railroad track near the Fair Grounds to the Edson Cemetery, that Westford Street be paved from Chelmsford Street to Pine Street with granite, asphalt or vitrified brick, that Aiken Street be paved from Cheever Street to the Bridge, and the paving on Chelmsford Street be completed. All streets where there are double tracks should be paved, since the constant travel is likely to make dangerous ruts. Market Street from Central Street to the canal bridge should be repaved or covered with asphalt. Extensive repaving might also be done on Dutton Street. During the year 8,739 square yards of granite block paving were relaid in various parts of the city.

BRIDGES.

If extensive repairs were made on bridges, necessity demanded it. Such work neglected means a greater outlay of money when finally attended to. The Pawtucket Bridge was found to be in a dangerous condition and required a large amount

of labor and material. The sills and stringers were rotting, and scales had formed on the iron work three-eighths of an inch thick in places. The bridge was thoroughly scraped and painted two coats, above and below. The roadway and sidewalks were replanked.

The sidewalks of the Aiken Street Bridge were replanked and the roadway patched. This bridge should be repainted the coming season.

The Jefferson Street Bridge was replanked, scraped and received two coats of paint.

Central Bridge was scraped and repainted, and the roadway and the walk on the south side replanked.

The bridge on Moody Street, between Suffolk and Hanover Streets, was replanked and supplied with four new stringers and a new fence. The Merrimack Street bridge received a new sidewalk on the westerly side.

The roadway of the Worthen Street bridge was replanked. The bridge on Market Street, between Suffolk and Lewis Streets, was entirely replanked, and received improvements on the stringers and fences.

At the beginning of the year only the pier and abutments of the new Moody Street bridge were in position. Since then the bridge has been completed, the approaches laid out, and a portion of Pawtucket Street widened, necessitating the moving

of a solid wall back 10 feet. Negotiations with the Locks and Canals Company, not anticipated, caused some delay.

STREET SIGNS.

I would recommend that in the purchase of new street signs the city obtain those made of metal. There in a great need of the city being thoroughly canvassed and new signs put up.

STREETS.

The city now has 119.79 miles of accepted streets. A good piece of work has been done in macadamizing Andover Street with Salem trap rock. Thorndike Street was macadamized from Davis Square to Hale Street, and I would recommend that the work be continued to Middlesex Street.

Macadam approaches to the new Moody Street bridge were laid, and a light dressing given to Eighteenth Street and Marlborough Street from Westford Street to Pine Street.

The Princeton Street extension has been finished so far as the city is concerned, and should be completed by the state.

The work of finishing the highway over the Pawtucket grade crossing has proved a much greater task than was at first anticipated. It is a matter of regret that no filling is to be had in the immediate vicinity. Already 12,000 loads of earth have been drawn from a distance.

The city crusher plant is now one of the best in the country. It has a capacity of from 250 to 300 tons of crushed stone daily. For reasons unavoidable, it was as late as August before the plant was in operation. A steam drill introduced in the ledge does the work of nine men. The rock is of poor quality for heavy travelled streets, but will do very well on side streets having but light travel. I would recommend the use of Salem trap rock for top dressing.

The city needs another steam road roller, for it is rolling that makes a street, and it is impossible to do much macadamizing with but one roller. A street constructed of good material, with good gutters, well crowned and provided with plenty of catch basins to shed the water quickly, cannot fail to give pleasure to the traveling public.

There was no special appropriation for the Boulevard last year, and yet the freshet early in the spring made an expenditure of $2,000 necessary; this was for the removal of sand and debris, and not for improvements. The new highway extending from Tyngsborough to the point opposite the Country Club has been finished and should be connected with the Boulevard during the coming season. I would recommend a special appropriation for the Boulevard.

During the year the agitation for better roads has been continued by the Good Roads League and similar organizations. In connection with this let me again call attention to the necessity of good material for proper

road building. I have already spoken of the quality of our crushed stone; the city is destitute of gravel as well, and I would recommend the purchase of a good gravel bank somewhere in the country on the line of the railroad. Pockets might be maintained as distributing points in various parts of the city, and they would soon pay for the cost of their construction.

During the year 68 streets were graded, as against 45 for the preceding year. The department did the best work possible with the material at hand.

STREET WATERING.

There were 25.45 miles of streets watered during the summer months, as ordered by the City Council. Some new carts will be needed this year, and I would respectfully suggest the introduction of street car sprinklers similar to those in use in some other cities.

SEWERS AND DRAINS.

During the year this important department has been remodeled and brought up to date. Very early in the spring it was apparent that a great deal of sewer work would be done, and of a heavy and difficult character. The Committee on Sewers, having by their vote decided to build the Oakland Main Sewer, the Lincoln and Border Streets Sewer, and rebuild at a greater depth and increased size the Gorham Street Sewer, all of which were sewer jobs extraordinary,

each requiring a manipulation adapted to its character and location.

First in magnitude, if not importance, comes the Oakland Main, a circular, double-brick sewer, sixty (60) inches in diameter, seven hundred ninety-seven (797) feet long, and built at a depth of from six (6) feet to twenty-six (26) feet practically through solid ledge from the Merrimack River to Andover Street, or from beginning to end. This work was not only difficult, but dangerous, in its character, from the fact that two tons of high explosives were used in the removal of two thousand five hundred twenty-one (2521) cubic yards of rock excavated, and it is a gratification to know that not a single accident occurred upon the work while it was in progress. The Committee on Sewers frequently visited this work, the largest since the construction of the Intercepting Sewer in 1883 and 1884 (upon which I was employed as foreman under Superintendent John C. Woodward), and from a personal knowledge of its magnitude decided to render the Superintendent all assistance in their power, and to that end, at the request of the Superintendent, purchased two derricks, two double-drum Lidgerwood hoisting engines, five steam drills, and small tools sufficient to execute the work in an up-to-date manner. It was necessary to protect the brick work at the mouth of the sewer, at the river, by a high and very strong retaining wall and abutment to shield it from floating ice, logs and debris

that come down the river with the spring freshets. In fact, the Oakland Main Sewer will forever stand as a monument of engineering skill and workmanlike construction.

The Lincoln and Border Streets Sewer being located in close proximity to the Intercepting Sewer, the characteristics of its construction were necessarily similar, and since the Intercepting Sewer is a matter of municipal history I will briefly state that the Lincoln and Border Streets Sewer is built of double brick seven hundred seventy (770) feet in length, forty-five (45) inches by thirty (30) inches in diameter, at an average depth of thirteen (13) feet and two (2) inches. The construction of this sewer was very difficult and expensive on account of the quicksands and water, as in the above mentioned Intercepting Sewer, which were encountered and overcome.

The Gorham Street sewer, if not the greatest in construction, was perhaps the first in importance, being a replacement of an old sewer built in the early fifties, and of insufficient size and depth to meet the requirements of today. The main difficulty to be overcome was the saving the use of this main thoroughfare to the citizens, and here once more the Committee on Sewers rendered very valuable assistance, not alone to the Superintendent, but to the citizens, by hiring from Mr. Carson, the Chief Engineer of the Boston Subway, one of his new excavating machines, thereby enabling the work to be

Outlet of Oakland Sewer into Merrimack River

prosecuted without stopping either carriage or car service. The junction of Middlesex and Central streets at Towers' Corner being one of the most congested portions, it was determined to tunnel, which was successfully done from the point of beginning to a distance of fifty (50) feet, when the Carson Transmitter was set up. The rebuilding and deepening of an old sewer is always unsatisfactory on account of the re-connecting of private drains which enter the main sewer, and this was especially true of the Gorham Street sewer on account of the great number of connections to be made at an unusual depth. The length of this sewer as rebuilt was eight hundred twenty (820) feet, sub-divided in lengths and sizes as follows: Three hundred seventy-one (371) feet and three (3) inches of twenty-four (24) inch double thick, salt-glazed pipe, two hundred ninety-six (296) feet and two (2) inches of eighteen (18) inch pipe, and one hundred fifty-three (153) feet of fifteen (15) inch pipe, laid at an average depth of fourteen (14) feet and eight (8) inches.

Especial mention should also be made of the Fifth Avenue sewer in Pawtucketville, seven hundred seventy-six (776) feet in length, built of double brick forty-five inches by thirty inches in diameter, at an average depth of seventeen (17) feet. In the building of this sewer five hundred eight (508) cubic yards of rock was removed by blasting. Individual mention might be made of others, but for a tabu-

lated statement of kind, length, size, depth, ledge and cost as computed by the engineer, reference may be had to the annexed table.

In order that the sewers constructed in 1896, ordinary or extraordinary, might be built at as small a cost as was consistent with the character of the work, it was necessary to place the department in first-class working order. Tools and appliances of modern make were readily purchased by the Committee on Sewers, and for the better accommodation of machinery and tools a tool house forty (40) feet by eighty (80) feet, two stories high, was built at a cost of Three Thousand Dollars ($3,000) upon land owned by the city, on the east side of Broadway, opposite the City Stables. The tool house also contains an office, blacksmith shop and repair shop, and is sufficient in size to meet the requirements of the department for the next twenty years. Previous to my term of office the land upon which the tool house is built and the adjoining land had been used as a dumping ground for street sweepings and refuse, and the accumulation of filth in so central a part of the city had become a public nuisance. This has been done away with by a special arrangement, the street refuse being sold to farmers, as per report of the Street Department. To-day for the first time in its history the Sewer Department has a yard amply large for the storage of lumber, carts, etc., and a house for the storage of tools,

machinery and equipments equal to any sewer department in the Commonwealth.

As a result of Civil service methods, I was compelled to secure several new foremen and was fortunate in obtaining the services of men who were intelligent and competent, and who will with experience be able to do a class of work unexcelled by the sewer department at any previous time in its history. Generally speaking, the citizens of any community know but little of what is done by the authorities for their health, safety and comfort. To particularize, how many of our citizens know that for their health and comfort seventy-three (73) miles of sewers, varying in size from seven (7) feet to one (1) foot in diameter, carry by gravity the waste water and filth of at least seventy thousand (70,000) people, also the water that falls upon over one hundred (100) miles of streets, to remote and safe places; the latter through the medium of catch basins, of which one hundred and sixty two (162) were built in 1896, not at random or where asked for by people who saw a puddle in the street, but at suitable places as determined by the grade ot the street and located by the engineer in charge. Our sewer system is automatic; that is, it is so constructed that whatever enters a sewer (unless it is a solid) flows by gravity to the outlet. The branch sewers in side streets leading into the mains,and the mains collecting the sewage from the laterals it flows on, the burden ever in-

creasing, to the rivers which are the outlets. For illustration, let us follow the course of water that enters the Foster street sewer at Pine street; through Foster to Westford, to Coral, to Middlesex, to Jackson, to Hurd, through Middlesex Yard and emptying into the Concord River below the dam, having travelled by a circuitous route a distance of more than two miles. That this automatic arrangement may go on all over the city it is necessary to care for the trunk sewers by keeping them clear of obstructions which enter through the catch basins, manholes and house connections; therefore, during the winter season when the foul odors which emanate from the large sewers are the least liable to cause annoyance to street passengers and positive detriment to the health of people who, in their homes, might have their doors and windows open in summer, gangs of men operate in each main sewer to remove whatever has become lodged, and huudreds of cart loads are thus removed from our large sewers. I am frequently accosted by a good citizen who represents to me that one or more men are standing on the street watching a hole. The fact is that the iron cover of the manhole of the sewer has been removed and two or three men, who are perhaps twenty feet under ground, are engaged in removing the solid matter which is in the sewer, carrying it by means of pails or wheelbarrows, according to the diameter of the sewer, to the bottom of

the manhole when it is hoisted in pails by the men above who place it in carts to be carried off.

In closing I would briefly call the attention of the Committee on Sewers for 1897 to the fact that several thickly settled portions of our city are without sewers or the proper means of taking care of their sink or cesspool nuisances, viz., that portion of the city known as the Oaklands, on the southerly side of the hill bounded by the Rogers land, now or formerly; also the portion of Pawtucketville included in the thickly settled neighborhood bordering on the Water Works Conduit in the immediate vicinity of the new Moody Street Bridge. I would also call attention to, and recommend the removal of, the old stone drain running from Railroad street at the tracks of the Boston & Maine Railroad through the old stone yard and across the South Common, through private lands in the thickly settled district bordered by South, Union and Gorham streets; thence through Charles street, across Central and in Tyler street to the alley back of Conant's stable; thence to the sewer in Church street through a very large settling basin. For a number of years this old stone drain, a relic of 1850, has given no end of trouble and considerable expense, not to mention its positively dangerous condition as a menace to public health. It is at present the only outlet of all the sewage from the large manufacturing establishment of C. I. Hood, and from Railroad, Howard, and other streets

in that vicinity. I would also recommend the immediate necessity of providing a system of storm water carriers for that portion of the city in the neighborhood of Tyler Park, said system to be separate from the sewer system.

In conclusion, I desire to express my gratitude to the City Engineer and his able assistant, Mr. F. W. Farnham, in charge of the Sewer Department, for their valuable suggestions and assistance, also to the Assistant Superintendent of Sewers, Mr. Laforest Beals, for his earnest and hearty support. Neither would I forget the foremen in charge of construction; they have been faithful in the discharge of their duties, as have also the men under them, and I heartily thank them for their co-operation in helping to make our Sewer Department one of the best.

Respectfully submitted,

C. J. CHENEY,

Superintendent of Streets.

ANNUAL REPORT

OF THE

CHIEF ENGINEER

OF THE

FIRE DEPARTMENT,

OF THE

CITY OF LOWELL.

FOR THE YEAR 1896.

LOWELL, MASS.:
LOWELL SUN PRINT: SUN BUILDING:
1897.

REPORT.

Chief's Office, Palmer St. Engine House,
Lowell, January 1, 1897.

To the City Council of the City of Lowell:

Gentlemen: — In accordance with the requirements governing the Fire Department, it becomes my duty, as Chief Engineer, to present to you the Annual Report of the Fire Department of the City of Lowell for the year ending December 31st, 1896.

The report will be found to contain statements in detail, embracing the amount of expenditures, a register of the department, with the age, residence, and occupation of each member, a record of all alarms and fires which have occurred during the year and the cause thereof, with the names of the owners and occupants, the loss and insurance, as near as could be ascertained, and the number and location of the fire-alarm boxes; also an inventory of all property of the department, in charge of the

several companies, and such other information as is thought proper for your consideration.

The following statement will show the receipts and expenditures:

RECEIPTS.

Appropriation	$115,000 00	
Loan	5,000 00	
Received from other sources	411 45	
Transferred	15,000 00	
		$135,411 45

EXPENDITURES.

Pay Rolls	$98,593 45
Water Works, for Water for Hydrants, etc	11,608 65
New Hose, Pipe, and Repairs	1,124 93
Electric Light Company, for Power	77 53
Watering Streets, for Assessments	34 73
Telephone Rental, etc	29 48
Express	67 32
Horses, Exchange and Use of Horses	1,413 50
Horse Shoeing	1,334 97
Veterinary and Medicines	399 30
Hay, Straw, and Grain	5,533 76
Harnesses, Whips, Blankets, etc	384 20
Laundry	202 43
Beds and Furniture	318 96
Wood and Coal	1,926 30
Repairs on apparatus	2,863 36
Repairs of house	263 00
Oil, Sponges, Brooms etc	1,316 01
Rent	85 00
Gas	1,025 20
Amount carried fooward	$128,602 08

Amount brought forward	$128,602 08	
Cloth, Buttons, Badges, etc	235 34	
Fire Alarm Expenses	2,863 24	
Chemicals	343 21	
Printing	177 00	
New Ladders	159 60	
Chief's Expenses to London	400 00	
Incidentals	139 82	
Total Expenditure for the year 1896		$132,920 29
Transferred to Appropriation for Police		982 89
		$133,903 18
Balance undrawn Dec. 31, 1896		1,508 27
		$135,411 45

SALARIES OF MEMBERS OF THE FIRE DEPARTMENT.

Chief Engineer	$2,000 00	per annum.
First Assistant Engineer	500 00	" "
Other Assistant Engineers	400 00	" "
Secretary of the Board of Engineers	25 00	" "
Foremen of the Companies (call)	300 00	" "
Call Men	200 00	" "
Permanent Men	2 75	" day.
Foremen of Companies (permanent)	3 00	" "
Engineers of Steamers (permanent)	3 00	" "

The department is divided into two classes, Permanent and Call. The Permanent Force consists of

Chief Engineer,
1 Fire Alarm Operator,
24 Hosemen,
4 Patrolmen,
24 Drivers,
13 Laddermen,
6 Engineers of Steamers,
1 Driver for Chief Engineer.

A total of 74, of which 14 are Foremen and 12 Assistant Foremen.

The Call Force consists of

4 Assistant Engineers, 70 Hosemen,
27 Laddermen.

A total of 101, of which 2 are Foremen and 4 Assistant Foremen.

This makes a total of 175, divided into companies as follows:

6 Steam Fire Engine Companies, with Hose Reels.
5 Horse Hose Companies.
5 Hook and Ladder Companies with Chemicals Attached.
1 Patrol Company.

The changes in the force during the year have been as follows:

Deaths	4
Appointed to Call Force	3
Transferred	2

The apparatus is kept in the best possible condition, and consists at present of six Engines, six one-horse and one two-horse Hose Wagons, one Babcock Aerial Truck, and three trucks of other patterns, two Chemical Engines, one Hale Water Tower, one Patrol Wagon and sleigh fully equipped, three Hose Pungs, eight Fuel Wagons, three Wagons and one Sleigh for use on fire alarm, one Wagon and Sleigh for Chief's use, and sixteen Fire Extinguishers.

In reserve there are one two-horse and one one-horse Hose Reels.

I renew my recommendations that the Water Tower should have better quarters, and I hope that before we have another fire to need it you will secure a proper place near the headquarters to house it.

Three new boxes have been located and placed in service the past year and are numbered and located as follows:

236—B Street, corner of Puffer Street.
75—New Moody Street, corner of Riverside Street.
55—Kitson Machine Shop.

Connected with the circuit there is one ten-circuit non-interfering repeater, one ten-circuit cut-out and testing switch-board, twelve galvonometers, ten bell-strikers, fifteen large gongs, for engine houses, eight small gongs, seventeen indicators, sixteen electro-magnets and connections for opening stall doors, twenty-three electric light current protectors, one hundred and four public and eight private signal boxes, one hundred miles of wire, the whole supplied with a storage battery of four huudred cups.

There is also one large gong and indicator combined in the Police Station, one large gong at Pumping Station, Merrimack Square, Tower's Corner, and near the Northern Depot.

TELEPHONE.

There are connected with this system nineteen stations, consisting of transmitter, telephone, bell, and battery; there are also twenty-two tap bells for the rooms of the Engine Houses and about forty miles of wire owned by the City under the care of the Fire Alarm Operator, except the telephones and transmitters, which are leased from the Telephone Company. The ringing line is supplied by a storage battery of one hundred cups.

HORSES AND HARNESSES.

There are sixty-four horses in the service of the department, thirteen of which belong to the Street Watering Department and are used by the department in bad weather for their keeping. The horses now are in good condition, but the service required of them by enforced idleness that they are compelled to endure, and when called upon to respond to alarms is calculated to soon break them down and render them unfit for use in this department. There are twelve sets of double harnesses, ten sets of three-horse hitch-harnesses, and four single swinging harnesses of the Berry and Hale patents.

HYDRANTS.

During the year thirty-two new post hydrants have been added, making a total of ten hundred

and seventy-one, for which this department is charged twelve dollars ($12.00) each annually. The hydrants added are located as follows: Avon and Middlesex streets, two each; B, Blossom, Broadway, Bourne, Burgess, Burtt, Congress, Crawford, Edwards Ellsworth, Fulton, Hadley, Harvard, Lawrence, Maple, Mt. Hope, Moody, Orleans, Perrin, Perry, Poplar, Riverside, Sidney, Stevens, Beacon and Third Streets, Fort Hill, Sanders, and Livingston Avenues, one each.

PROTECTIVE DEPARTMENT.

This department is maintained by the City and consists of five permanent men. This company has again demonstrated its usefulness in saving property from damage at fires and has been of great assistance in subduing small fires with its extinguishers. During the past year it has spread two hundred and ninety-five covers, has used ninety-six extinguishers, and has been in service two hundred forty-two and one-half hours.

Chemical Engine C, attached to Truck 2, has used twenty-seven tanks. Chemical Engine B, attached to Truck 3 has used fifty-seven tanks.

HOUSES.

The houses of the department are in very good repair, and having been improved from year to

year they are provided with every requisite for the comfort and convenience of the men and ample accomodations for the horses and apparatus.

FIRES AND LOSSES.

The whole number of fires that occured during the year ending December 31, 1896, was three hundred and eighty. One hundred and forfy-nine first, and two second alarms were given from signal boxes, sixty-one by telephone, one hundred and sixty-five still alarms and three automatic.

There has been an increase of ninety-two alarms over last year, but the losses have been much less. The whole amount of losses as near as could be ascertained was $124,500.41, insurance $1,324,166.00; insurance paid, $116,364.41, making the amount of loss above insurance, $8,136.00.

The only notable fire was the one which ruined the fine residence of Fred Faulkner on Belmont street, which occured August 18th. The house stood alone on the top of the hill, and there being no one in charge, the family having gone away, the fire had worked its way through every room except the tower, before it was seen and the alarm given. It was a total loss of fifty thousand dollars ($50,000.00).

There have been two cotton fires during the past year. The first being the destruction of cotton to

the value of $3,562.50, property of the Hamilton corporation, which was stored in the old Boston & Maine Railroad freight house, the other was the destruction of between eighteen and nineteen hundred bales of cotton, property of the Massachusetts Corporation, which was stored in the Corporation yard. The fire was caused by combustion and started in the centre of the pile and every bale had to be handled. The alarm was sent in at 3.25 P. M., and the companies responding remained on duty until 10.45 the following morning. The loss was $9,416.00. There were only eleven other fires where the loss was $1000.00 or more. The total loss on these fourteen fires was $103,899.09, leaving the balance of $20,601.32 to be divided among the other three hundred and sixty-six fires. There were one hundred and eighty-two (182) fires extinguished by chemical extinguishers and only eighty-two fires where water was used, the remaining number of fires were extinguished by other means or had been put out before the arrival of the department apparatus. For further particulars in regard to fire and losses I refer you to the table annexed to this report.

The department has responded to eight calls out of the City, two in Dracut, three in Tewksbury, two in Chelmsford and one in Westford. One engine and two hose wagons were already to load for Westford when they telephoned that the fire was under control.

The following will show the causes of the different alarms as near as could be ascertained.

Curtains set by gas jet	10
Flash light taking pictures	1
Stove pipe set roof	1
Lard on stove	1
Children and matches	17
Bonfire	2
Lightning	7
Overheated fireplace	2
Brush	3
Chimneys	32
Hot ashes	5
Out of the city	8
Electric switch board	1
Overheated wires	11
Clothes in closet	2
Defective chimneys	13
Rags in chimney hole	1
Chimney smoking	5
Clothes and hot stove	6
Gas leak	4
Gas heater under boiler	1
Careless smoking	4
Stove smoking	3
False alarms	4
Fire crackers	12
Supposed incendiary	5
Explosion naphtha vapor	1
Gas stove	3
Stove and floor	2
Stove wood box	3
Alarms for same fire	14
Oil lamp explosion	9
Grass fire set stables	2
Defective motor	3
Smoking in bed	2
Automatic	3
Gas jet and picture frame	1
Supposed electric wire	1
Overheated thermostats	3
Combustion	16
Rubbish	1
Rats and matches	18
Lime slacking	3
Hot air balloon	1
Locomotive sparks	4
Sparks set roof	27
Unknown	21
Thawing pipe	2
Fireworks	2
Lamp and curtain	3
Burning old mattress in cellar	1
Cigar stubs	7
Oil stoves	7
Steam pipe	2
Defective smoke pipe	2
Pistol shot and bed	1
Candle left in box	1
Boiler tube blew out	1
Careless use of matches	15
Incendiary	5
Rekindled	6
Grass	5
Stove pipe snd ceiling	1
Combustion of coal	2
Plumbers' furnace	1
Shavings	3
No school	10
Overheated oven	1
Stove and shingles	1
Hot stove pipe and bedding	2
Second alarms	2
Gas jet and evergreen	2

Of the buildings in which these fires occurred, two hundred and eighty-one were of wood, sixty-one of brick and stone.

WOODEN BUILDINGS.

BLOCKS, COTTAGES, ETC.	MILLS.	CHURCH'S	SCHOOL HOUSES	SHEDS	STABLES
1 Story, 1,690	1 Story 26	20	28	2,159	2,155
1 1-2 " 2,054	2 " 22				
2 " 3,400	3 " 43				
2 1-2 " 1,932	4 " 49				
3 " 868	5 " 3				
5 " 112					
10,056	143	20	28	2,159	2,155

Total number of wooden buildings..... 14,561
An increase during the past year of..... 420

BRICK BUILDINGS.

BLOCKS, ETC.		MILLS.		CHURCHES.	SCHOOL HOUSES
1 Story	59	1 Story	21	19	21
2 "	114	2 "	64		
2 1-2 "	68	3 "	72		
3 "	196	4 "	45		
4 "	181	5 "	22		
5 "	29	6 "	26		
6 "	6	6 1-2 "	7		
	653		257	19	21

Total number of brick buildings..... 950
An increase during the past year of 9

STONE BUILDINGS.

Churches, 6; 1 Story, 2; 2 Story, 26; 3 Story, 8; 4 Story, 6.

Total number of stone buildings 48
Total number of buildings of all descriptions..... 15,558
An increase during the past year of..... 429

Some of these blocks have from four to twenty tenements.

The following table shows the number of alarms of fire each month:

January, 37; February, 33; March, 30; April, 43; May, 28; June, 33; July, 34; August, 29; September, 24; October, 15; November, 30; December, 41.

During the past year the department has been called upon to mourn the loss of four of its members.

A. Merrill joined the department Dec., 1873, as a member of Hose 5, afterward changed to Hose 10. He died Jan. 18th, after a short illness.

John J. Quinlan, Captain of Engine 4, joined the department August, 1871, He died after the very short illness of two days, June 11th.

J. O'Hare joined the department Jan., 1893, as a member of Hose 11, he was thrown from a wagon while answering an alarm of fire April 9th, he was carried to St. John's Hospital where he soon died.

Simon O'Connell joined the department April, 1884, as a member of Engine 1. He died Dec. 11th being ill less than one week.

A delegation from the department paid the last tribute of respect at their funerals.

Thirteen members of the department were injured, none of whose injuries resulted fatally, though some of them had very narrow escapes. The injured were Engineer George F. Salmon; George W. Lovett, Engine 1; C. E. Alway, W. H. Oakes, A. S. Maynard, E. E. Maynard, Engine 2; S. S. Page, Engine 5;

Schedule of Fires which have occurred in the City of Lowell, during the Year ending December 13, 1896.

Date 1895	Time	Signal	Location	Wood, Brick or Stone	Owned by	Occupied by	Occupied as	Loss	Insurance	Insurance Paid	Cause of Fire	Remarks
Jan. 1	3.30 a m	Tel.	Tewksbury	Wood.	Wm. Guyette	Wm. Guyette	Dwelling				Unknown	Out of the City
"	4.22 a m	"	"	"	" "	" "	"				" "	" " " "
" 4	7.36 a m	5	Dutton st	"	A. L. Brooks & Co	Several		$ 275 50	$ 5,000	$ 175 50	Steam Pipe.	
"				"		J. Tripp & Co	Roll Coverer	409 24	4,000	409 24		
"	10.08 a m	Still	Middlesex st	"	D. Whiting	W. McDonald	Dwelling				Spark set roof.	
"	5.03 p m	"	Andover st	"	R. Reed Est	Unoccupied	"				Stove smoking.	
"	6.00 p m	"	Hanks st	"	J. Stott Est	"	"	5 00	5,000	5 00	Match and curtain.	
" 5	5.53 p m	"	Lakeview ave	"	T. Morris	Several	"				Chimney.	
" 6	5.44 a m	"	Moody st	"	H. B. Hill	"	"				"	
"	10.22 a m	72	Middlesex st	"	S. Farson	"	Stores and Dwelling	1,847 34	10,000	1,502 34	Rats nest in partition.	
"	12.15 p m	Still	"	"	D. Whiting	W. McDonald	Dwelling				Spark set roof.	
"	2.13 p m	Tel.	Kirk st	Brick.	C. E. Adams	Dr. Warner	"	11 67	3,000	11 67	Overheated lire place.	
"	8.15 p m	Still	Mt. Vernon st	Wood.	P. Whiting	P. Whiting	"				" "	
" 9	3.43 p m	"	Moody st	"	G. E. Stanley	G. E. Stanley	Wood Shed	2 25	250	2 25	Spark set roof.	
"	9.40 p m	225	Lewis st	"	Mrs. Sara Connelly	Several	Dwelling				Defective Chimney.	
" 10	7.45 a m	222									No school.	
"	12.57 p m	222									"	
" 11	11.30 a m	Still	Andrews st	"	C. Ekengren	C. Ekengren	Dwelling	8 50	400	8 50	Child playing with matches set bed.	
"	6.00 p m	"	Westford st	"	Mrs. C. F. Varnum						Thawing water pipe.	
"	6.44 p m	27	East Meadow road	"	E. L. March	T. E. Rourke	Stable	825 00	600	525 00	Supposed Incendiary.	
"	7.45 p m	Still	Gorham st	"	Pat. Farrell		"				Hot ashes in barrell.	
" 13	5.43 p m	53	Green st	Brick.	B. & M. R. R	Hamilton Corp	Store House	3,562 50	57,500	3,562 50	Combusting of cotton.	
"	9.35 p m	113	John st	"	Boott Corp	Mrs. Holbrook	Boarding House	50 00	1,000		Clothes in closet.	
" 15	5.30 p m	83	D st	Wood.	H. M. Keith	H. M. Keith	Dwelling	175 00			Clothes and hot stove.	
" 16	3.51 p m	Still	Andrews st	"	U. S. Cartridge Co	U. S. Cartridge Co	Cartridge M'f'g				Explosion.	
"	7.00 p m	"	School st	"	W. E. Patten	W. E. Patten	Dwelling	45 00	4,500	45 00	Gas jet and curtain.	
" 19	1.05 a m	"	Howe st	"	C. A. Stott	Several	"				Defective Chimney.	
" 20	3.48 p m	28	Hall st	"	E. H. Duprez	E. H. Duprez	Furniture Store	20 00			Stove pipe and roof.	
" 21	10.04 p m	51	Congress st	"	G. Runals	Several	Dwelling	320 50	5,000	295 50	Rats and matches in partition.	
" 22	2.25 p m	Still	Tyler st	"	Mrs. A. E. Farrington	Mrs. Joy	Boarding House	75 00	6,000	75 00	Matches and lounge.	
" 24	12.33 a m	Tel.	Western ave	"	Eastman Heater Co	C. G. Thurston	Potato Car	400 00		50 00	Oil heater set car.	
"	6.05 p m	222									No school.	
" 25	3.00 p m	Still	Lawson st	"	Mary Parr	J. S. Hastings	Dwelling	36 40	3,000	36 40	Gas jet and curtain.	
" 26	11.21 a m	56	Middle st	Brick.	Wright & Eastman	J. H. Joyce & Co	Saloon	101 00	11,900	101 00	Flash light set trimmings.	
"	3.00 p m	Still	Merrimack st	"	J. J. Coffee Trustee		Clothing Store				Straw caught from boiler.	
" 28	9.35 p m	152	Moody st	Wood.	O. G. Clark	Several	Stores and Offices				Rats and matches in partition.	
" 29	6.00 p m	Still	Warwick st	"	D. Harding	D. Harding	Dwelling	10 00	3,500	10 00	Lamp upsett.	
" 31	2.04 a m	215	Meadowcroft st	"	S. E. & T. Stott	S. E. & T. Stott	Card Clothing M'f'g	313 67	16,250	313 67	Unknown.	
"	4.16 a m	56	Merrimack st	Brick.	W. Sherburne	A. S. Govostes	Candy Store	550 00	17,000	550 00	Incendiary.	
"	10.00 a m	Still	Wamlamcit st	Stone	G. F. Libby	G. F. Libby	Dwelling	57 70	2,000	57 50	Careless use of matches.	
"	8.00 p m	"	East Merrimack st	Wood.	High Street Church	High Street Cong	Church	15 00	14,500	15 00	Gas jet and evergreen.	
Feb. 2	7.30 p m	"	Cross st	Wood.	Mrs. Sarah Duffee		Dwelling				Chimney.	
" 6	12.45 p m	222									No school.	
"	6.05 p m	222									"	
"	10.15 p m	Still	Dutton st	Brick.	H. Emery Estate		Theatre				Electric wire set roof.	
" 8	6.45 p m	"	High st	Wood.	P. H. Donohoe	P. H. Donohoe	Dwelling	70 50	5,500	70 50	Careless use of matches.	
"	7.17 p m	13	Paige st	"	Hildreth Estate	W. H. White	"	38 53	3,000	38 53	Incendiary	A. Poisson sent to reformatory
" 9	4.00 p m	Still	School st	"	E. Peltier	E. Peltier	"	5 00	1,500	5 00	Careless use of matches.	
"	10 23 p m	Tel.	Market st	"	Cahill Bros	H. Ayotte	Barber Shop	104 25	1,600	104 25	Supposed Incendiary.	
" 10	10.30 a m	Still	Hampshire st	"	A. A. J. Rodes	A. A. J. Rhodes	Dwelling	19 00	2,300	19 00	Plumbers furnace	
"	3.18 p m	23	Stanley st	"	Mrs. L. E. Sheppard	Several	"	350 00	1,000	350 00	Hot stove pipe and ceiling.	
"	5.35 p m	Still	School st	"	Mrs. Cole	Mrs. Cole	"	10 00	2,500	10 00	Careless use of matches.	
" 13	6.25 p m	Tel.	Walker st	"	H. C. Howe	F. Ela	"	270 00	3,400	270 00	Rats nest in partition.	
" 14	4.30 p m	Still	Middlesex st	Brick.	J. Boyle	Several	"	10 00	1,500	10 00	Smoking.	
"	5.54 p m	65	Lakeview ave	Wood.	J. Small	J. Vearleon	Fancy Goods Store	45 30	6,950	45 39	Gas jet and goods in window.	
"	6 56 p m	Still	Moody st	"	W. R. Harris	Several	Dwelling				Defective chimney.	
"	8.00 p m	"	Appleton st	"	S. Smith	"	Boarding House	5 00	1,000	5 00	Careless use of matches.	
" 15	6.15 p m	"	Fletcher st	"	G. E. Stanley	T. J. Kennedy	Dwelling	35 00	4,500	35 00	Gas jet and evergreen.	
" 16	1.41 a m	5	Cushing st	"	W. Cleworth	H. Story	"				Hot stove and coat.	
"	9.05 p m	Still	Jewett st	"	Thos. Barry		"				Chimney.	
" 17	12 47 p m	"	Wright st	"	R. M. Hills		"	4 95	1,200	4 95	Spark set roof.	
"	12.50 p m	41	Nesmith st	"	G. F. Richardson	G. F. Richardson	"	25 00	17,000	25 00	Combustion of coal.	
"	1.44 p m	Still	Central st	"	Locks and Canals	J. P. Dugdale	Cigar Store	62 20	8,000	62 20	Alcohol and matches.	
" 18	9.45 a m	"	Bay State ave	"	J. Nichols Estate	Several	Dwelling				Defective chimney.	
" 20	12.41 a m	Tel.	Stevens st	"	C. E. Marshall	C. E. Marshal	Hot. House	3,000 00			Hot stove pipe.	
"	1.25 a m	283	"	"	" "	" "	" "				Same fire.	
"	4.45 a m	Tel.	"	"	" "	" "	"				Combustion of coal.	
"	9 35 a m	Still	Fayette st	"	T. Boyle	T. Boyle	Dwelling				Chimney.	
"	10.26 a m	42	Middlesex st	"	Dr. Holt	Several	"				Meat on stove.	
" 21	5.35 p m	Still	Dane st	"	F. Martin		"				Stove set floor.	
"	11.28 p m	9	Charles st	"	Mrs. M. J. Swan	Several	"	61 00	2,000	61 00	Defective chimney.	
" 23	1.18 p m	21	Merrimack st	Brick.	F. G. Mitchell	F. G. Mitchell	Dry Goods Store	25 00	176,000		Unknown.	
" 25	6.00 p m	Still	North st	Wood.	F. E. Shaw	Several	Dwelling				Lamp exploded.	
"	7.25 p m	"	West Third st	"	J. F. Puffer	"	Fruit Store				Oil stove.	
" 26	7.10 p m	"	Merrimack st	Brick.	Rose Jordan	Rose Jordon	Millinery Store				Electric wire set awning.	
"	8.05 p m	Tel.	Merrimack st	"	H. Emery Estate	A. V. Partridge	Hotel				" " " roof.	
Mar. 2	5.32 a m	46	Bridge street	Wood.	J. M. G. Parker Est.	S. Bean	Paint Shop	46 00	2,250	46 00	Lime.	
" 3	5.33 p m	54	School st	"	S. G. Parker	Several	Dwelling				Chimney.	
"	5.44 p m	Tel.	Dummer st	"	Donovan Bros		"				"	
" 5	12.43 a m		Gov. Greenhalge	Died.	his age, 53 blows	Struck on the bells						
"	9.55 p m	Still	Decatur ave	Wood.	S. G. Mack	Several	Dwelling				Chimney.	
" 6	p m	"	Mansur st	"	C. H. Nelson	C. H. Nelson	"				"	
"	7.58 p m	13	Bridge st	Brick.	G. B. White	Several	"				Lamp exploded.	
"	11.30 p m	Still	Merrimack st	Wood.	I. M. Chase	F. Ichin	"	10 00	500	10 00	Hot Stove.	
" 7	6.55 p m	26	Bowers st	"	P. Quinn		"	1,095 25	3,000	995 25	Combustion of rags.	
" 9	3.35 p m	Still	Middlesex st	"	D. Whiting	W. McDonald	"				Spark set roof.	
"	6.41 p m	"	West Fifth st	"	J. W. Brooks	J. W. Brooks	"				Chimney.	
" 12	5.40 a m	A. & T.	Howe st	Brick.	J. Nesmith Est	Unoccupied	Woolen Mill				Automatic.	
" 13	4.03 p m	Still	Middlesex st	Wood.	D. Whiting	W. McDonald	Dwelling				Spark set roof.	
"	10.09 p m	Tel.	Princeton st	"	Highland Club	Highland Club	Club House				Lamp exploded.	
" 16	2.15 a m	52	Ford st	"	J. B. Trueworthy Agt	Several	Dwelling				Child and matches.	
" 18	3.00 p m	Still	Shedd st	"	F. B. Shedd	A. B. Day	"	25 00	600	25 00	Children and matches.	
" 19	1.15 p m	222									No School.	
" 21	12.10 p m	Still	Middlesex st	"	D. Whiting	W. McDonald	Dwelling				Spark set roof.	
"	12.15 p m	"	"	"	W. A. Ingham	Wotten & Frost	Laundry				Overheated stove pipe.	
"	4.20 p m	"	Madison place	"		H. Merrill	Dwelling				Children playing with matches	Florence M. Merrill burned to death
"	8.10 p m	"	Middle st alley	"	M. O'Flahaven		Barrel				Hot ashes.	
" 24	1.36 p m	225	Little st	"	M. Fallon	Several	Dwelling				Children and matches.	
"	5.18 p m	38	Court st	"	J. R. Wilson	J. R. Wilson	"	30 00	500	30 00	Rats nest in partition.	
" 25	12.32 p m	Tel.	Thorndike st	"	W. E. Livingston	W. E. Livingston	Coal Shed	15 00	400	15 00	Spark from locomotive.	
"	12.34 p m	72	"	"	" "	" "	"				Same fire.	
"	1.47 p m	Tel.	"	"	" "	" "	Store House				Caught from the other fire.	
" 26	1.07 p m	"	Pawtucket st	"	D. Gage	Unoccupied	Ice House				Boys smooking.	
" 28	3.08 a m	"	Tewksbury	"	W. E. Riggs	W. E. Riggs	Dwelling and Stable				Incendiary, out of the city.	
"	3.19 a m	61		"		" "	" "				Same fire.	
"	4.10 p m	Still	Fourth st	"	M. E. Thompson						Chimney.	
" 29	1.49 p m	"	Central st	"	Locks and Canals		Stores				Chimney smoking.	
"	11.53 p m	181	Robbins st	"	C. T. Fish	Butler & Caswell	Dwelling	60 63	2,500	60 63	Combustion of rags.	
April 1	9.10 a m	18	Washington st	"	J. McDowell	J. McDowell	"	60 00	1,200	60 00	Wood box and matches.	
"	10.10 p m	Still	Middle st	Brick.	H. R. Barker Co	H. R. Barker Co	Foundry				Smoke.	
" 2	1.15 p m	222									No school.	
"	2.11 p m	Tel.	Gorham st	"	B. & M. R. R. Co	Lowell Rendering Co	Car				Combustion of bones.	
" 3	4.07 p m	39	Willie st	Wood.	Tom Fay	Several	Dwelling				Hot stove pipe.	
" 6	11.48 a m	Still	Merrimack st	Brick.	Mrs. Rugg	Moir Bros	Awning	63 00	18,200	63 00	Match or cigar stub.	
								30 00	9,500	30 00		
						Mrs. Burbank		25 00	3,000	25 00	From the other fire.	
"	11.49 a m		"	"	"		"				Grass.	Protective horse died
" 7	1.47 p m	67	Ennell st		Lawrence Corp						Shavings.	
" 8	9.37 a m	Aut.	Canner st	Brick.	Geo. Runels	Mer'k Croquet Co	Boiler Room				Clothes and hot stove.	
"	11 06 a m	74	Fowler road	Wood.	J. W. Kinman	J. W. Kinman	Dwelling	55 00	1,300	55 00	Chimney.	
"	11.15 a m	Still	Lincoln st	"	D True	D. True	"	5 00	1,200	5 00	Combustion	J. O'Hare killed
" 9	5.05 a m	38	Manchester st	"	Worthen & Lovering	W. & L	Waste Shed				Grass and stable.	
" 10	1.27 p m	81	South Willow st	"	A. Bebault	A. B	Store House	10 00	500	10 00	" " "	
"	4.56 p m	92	Nineteenth st	"	D. McNair	D. McNair	Stable	625 00	2,000	625 00	Grass.	
"	7.52 p m	Still	Perry st		Smith & Shedd						False alarm	Engine 5's house robbed
" 11	11.52 p m	74									Unknown.	
" 12	5.37 a m	19	Gorham st	Wood.	Archbishop Williams	St. Peter's Society	Church	355 75	19,000	355 75	Cigar stub.	
	3.17 p m	72	Thorndike st	"	Andrews & Wheeler	A. & W	Shed	15 00	50	15 00	Brush.	
	3.59 p m	Still	Boston road		Wm. Manning						shavings in boiler room.	
" 13	1.12 p m	37	Chambers st	Wood.	Bleachery Co	J. A. Thompson	Box Shop	8,725 00	10,500	8,725 00	Same fire.	
	1.30 p m	2nd Al.	"	"	"	"	"				Grass.	
"	5.30 p m	Tel.	Wentworth ave		Wyman Est						Steam pipe.	
"	7.22 p m	Still	Middlesex st	Wood.		Ela & Locke	Grocery				Rekinled.	
"	8.38 p m	Tel.	Chambers st	"	Bleachery Co	J. A. Thompson	Box Shop				Same fire.	
"	8.40 p m	37	"	"	"	"	"				Del Motor.	
" 14	7.15 p m	Still	Westford st		L. & S. R. R		Car				Brush.	
" 16	11.00 a m	74	Totman road		G. F. Willie						Grass.	
	12.34 p m	62	School st		G. D. Kimball						Oven smoking.	
" 17	1.07 a m	42	Middlesex st	Brick.	Meadowcroft Est	F. C. Bean					Spark set roof.	
" 18	2.03 p m	6	Fulton st	Wood.	P. Whiting	Allen & Co		10 00			Unknown	
"	3.00 p m	Still	Fourth st	"	M. E. Thompson	Several	Dwelling	15 00	1,500	15 00	"	
" 19	8.14 a m	42	Arch st	"	W. H. I. Hayes	W. J. Gilmore	Stable	1,800 00	2,000	1,800 00	"	
			Middlesex st	"	" "	" "	"	2,500 00	1,750	647 00	From other fire	
			Arch st	"	S. Renand & Son	Several	Dwelling	149 50	6,000	149 50	" " "	
			" "	"	E. Robbins	Mrs. Wright		25 00			" " "	
	6.16 p m	Tel.	Middlesex st	"	W. H. I. Hayes	W. J. Gilmore	Stable				Hay rekinled.	
" 20	2.13 p m	28	Aiken st		Lawrence Corp		Bagging				Cigar stub.	
" 21	12.18 p m	56	Merrimack st	Brick.	F. G. Mitchell & Co	F. G. M. & Co	Fancy Goods	6,593 00	176,000	6,593 00	Electric lamp in window.	
" 21	12.19 p m	56	"	"	Hunnewell Est	Head & Shaw	Millinery	45 00	2,250	45 00	Smoke from other fire.	
" 22	12.03 a m	16	Rogers st	Wood.	E. Cawley	E. Cawley	Wood Yard	25 00	500	25 00	Combustion in wood pile.	
" 23	4.16 a m	6	North Chelmsford	"							Out of the city.	
"	11.43 p m	Still	Chestnut st	"	M. McAlcer	Several	Dwelling	5 00			Smoking in bed.	
"	11.45 p m	31	"	"	"	"	"				Same fire.	
" 24	3.08 p m	Still	Maple st		City		Dump				Combustion.	
" 25	9.20 a m	Tel.	Jackson st	Wood.	F. Calvert		Dwelling				Chimney.	
" 26	12.32 p m	Still	East Meadow road		S. L. Ward						Brush.	
	1.38 p m	75	"	"	"						"	
" 27	12.41 p m	71	Chelmsford								" cut of the City.	
	9.40 p m	Tel.	Dummer st	Wood.	Mrs. C. Brophy	Several	Dwelling				Defective chimney.	
" 30	10.00 a m	Still	Bowers st	"	M. A. Shattuck	M. A. Shattuck	"	10 00	1,000	10 00	Gas Stove.	
May 1	4.18 p m	13	Bridge st	Brick.	G. B. White	R. Chaput	Fruit Store	24 60	300	24 60	Gas leak.	
" 2	2.20 p m	Tel.	First st		Locks & Canals		Dump				Boys and matches.	
" 3	2.10 p m	Still	High st	Wood.	T. Carland	T. Carland	Dwelling				Defective chimney.	
" 5	7.15 p m	"	Lincoln st	"	J. McKernan	J. McKernan	Fancy Goods Store				Lamp and fancy goods.	
" 6	1.20 p m	Tel.	Market st	"			Dwelling				Chimney.	
"	8.09 p m	28	Hall st		Locks & Canals		Dump				Boys.	
" 10	12.03 p m	Tel.	Aiken st		City		Bridge	10 00			Cigar stub.	
"	12.14 p m	125	Market st	Wood.	Mrs. E. Hennessy	Several	Dwelling				Oil stove.	
"	12.20 p m	Still	Paige st	Brick.	G. B. White		Awning	24 00	1,800	24 00	Match thrown from window.	
"	2.00 p m	"	Blusson st	Wood.	Mrs. C. B. Davis	Mrs. C. B. D	Dwelling	10 00	1,000	10 00	Cigar stub.	
" 11	12.55 p m	Tel.	Bridge st		City		Bridge				" "	
"	8.20 p m	Still	Branch st	Wood.	Highla'd Odd Fellows	H. O. F.	Lodge Room	86 00	6,300	83 00	Gas jet and regalia.	
" 13	9.20 p m	24	Middlesex st	"	J. Boyle	J. Boyle	Wood Shed				Incendiary.	
" 15	10.00 a m	Still	Jewett st	"	P. L. Denault	P. L. D	Dwelling	10 00	2,000	10 00	Unknown.	
" 16	4.40 p m	23	Lakeview ave	"	Mrs. J. Boody		"	279 00	1,100	279 00	Rats in partition.	
" 17	1.00 a m	Still	Middlesex st	"	J. Boyle	J. Boyle	"				Incendiary.	
	10.03 p m	Tel.	Middlesex place	"	Dr Holt Est	Several	"				Chimney.	
" 18	12.02 a m	325	Fenwick st	"	Mrs. McLaughlin	"	"	65 00	1,000	65 00	Rats in partition.	
	3.30 p m	Tel.	Aiken st		Locks & Canals		Dump				Boys.	
	3.55 p m	"	Concord st		J. Hickey		Pile of Lumber	5 00	2,000	5 00	Children playing with matches.	
	7.00 p m	Still	Gorham st	Wood.	D. G. Wilson	D. G. Wilson	Dwelling	59 75	5,000	59 75	Careless use of matches.	
" 19	7.38 p m	13	Central st	Brick.	M. Swan	M. Shannon	Dress Maker	15 00			Match and curtain.	
" 20	4.19 p m	9	Salem st	Wood.	Barrett Bros	A. Columbe	Blacksmith	19 50	700	19 50	Spark set roof.	
	5.15 p m	65	Aiken st		City		Bridge	200 00			Cigar stub.	
" 22	4.33 a m	82	Grand st	Wood.	S. Silberblat	S. Silberblat	Bake Shop	100 00	3,500	100 00	Combustion greasy rags.	
	11.30 a m	Still	Osgood st		Graham						Grass.	
	5.40 p m	"	Dublon st	Wood.			Dwelling				Chimney.	
" 23	3.56 p m	283	Chelmsford st	"	S. B. Puffer	G. Bernstein	Stable	45 00	1,200	45 00	No School.	
" 26	7.45 a m	222									Smoking.	
June 1	5.53 p m	46	West Third st	Wood.	W. P. Bryant	W. P. B	Blacksmith	7 50	1,900	7 50	Spark set roof.	
" 2	12.20 p m	Still	Clark st	"	J. Husband	J. H.	Dwelling	100 00	3,991	100 00	Chimney.	
" 4	6.38 a m	Tel.	Liberty st	"	R. Wood Est	H. R. Rice	"				Hot Ashes in barrel.	
	11.45 p m	"	Middlesex st	Brick.	C. W. W. Richardson	C. W. W. R	Hotel				Awning.	
" 6	5.40 p m	Still	Cambridge st	Wood.			Dump				Set by boys.	
	6 15 p m	"	Congress st								Rubbish.	
" 7	11 36 p m	51									Smoke from oven.	

Schedule of Fires which have occurred in the City of Lowell, during the Year ending December 31, 1896.

Date 1895	Time	Signal	Location	Wood, Brick or Stone	Owned by	Occupied by	Occupied as	Loss	Insurance	Insurance Paid	Cause of Fire	Remarks
" 10	6.40 p m	Tel.	Elliot st	Wood.	Dr Fesler	Dr. Foster	Dwelling	3 00	4,000	3 00	Gas stove and curtain.	
" 11	9.40 p m	52	Ford st	"	Vincent Bros	Several	"	4,796 00	6,000	4,390 00	Gas leak.	
" 12	12.50 a m	Tel.	Ayers City	"	Lundstrom & Smith	L. & S.	Fonndry				Unknown.	
"	12.54 a m	134	" " "	"	" " "	" "	"				Same fire.	
" 14	1.42 a m	235	Perry st	Brick.	White Bros	White Bros.	Tannery				Shavings in boiler room.	
" 15	8.20 p m	Still	Lee st	Wood.	J. W. Gordon	Several	Dwelling				Chimney.	
" 16	1.15 p m	Tel.	Aiken st		Locks & Canals		Dump				Combustion.	
"	2 43 p m	33	Brooks st	Wood.	A. Staples	Several	Dwelling	36 25	700	36 25	Careless smooking set lounge.	
" 18	5.40 p m	14	Concord st	"	J. Donnelly	J. Donnelly	"	966 00	2,800	966 00	Rats and matches.	
"	9.49 p m	Still	Merrimack st	"	I. M. Chase	D. Osgood	Bakery	10 00	3,000		Overheat Oven.	
" 20	3.50 p m	Tel.	Lawrence st	"	E. Hapgood	E. Hapgood	Mattress Manufactory				Overheat thermostat.	
" 21	2.00 p m	Still	Livingston ave	"	W. E Livingston	W. E. L.	Dwelling	29 00	15,400	29 00	Lightning.	
"	2.10 p m	"	Middlesex st	"	G. W. Flint	G. W. Flint	"	59 04	3,000	59 04	"	
"	2.25 p m	"	Butterfield st	"	J. McQuade	J. McQuade	"	15 00	2,000	15 00	"	
"	2.35 p m	"	Stevens st	"	S. A. Twist	S. A. Twist	Stable	27 00	200	27 00	"	
"	2.40 p m	"	Hampshire st	"	K. F. McMahon	K. F. McMahon	Dwelling	80 00	700	80 00	"	
" 22	2.54 p m	"	Middlesex st	"	D. Whiting	W. McDonald	Dwelling				Spark set roof.	
" 23	4.10 p m	"	" " "	"	" "	" "	"				Same fire.	
" 24	9.00 a m	Tel.	Central st		J. J. Donovan	Lowell Trust Co	Bank	$ 48 00	$ 13,500	$ 48 00	Wire set awning.	
"	1.15 p m	Still	Westford st	Wood.	C. A. Spencer	C. A. Spencer	Dwelling	77 00	4,000	77 00	Match and curtain.	
" 25	7.08 p m	9	Salem st	"	J. McDermott	LaCourt	"	59 25	2,500	59 25	Oil stove overturned.	
" 27	4.15 p m	135	Concord st	"	J. Gookin	J. Gookin	"	47 00	1,000	47 00	Rats and matches.	
"	5.48 p m	39	Fulton st	"	Otis Allen & Son	Several	"	10 00			Fire Crackers set roof.	
" 28	9.59 p m	33	Schaffer st	"	J. Pilling		"				Gas jet and curtain.	
30	4.51 p m	16	Chapel st	"	O. Cahill	A. O'Neil	"	105 00	1,500	75 00	Fire crackers.	
"	4.55 p m	Still	Mt. Vernon st	"	Otis Allen & Son	Several	"				Spark set roof.	
July 3	7.16 p m	18	Hale st	Wood.	E. A. Thissell	"	"				Fire crackers set roof.	
"	8.42 p m	Tel.	Central st	Brick.	J. Tyler Stevens	C. R. Talbot	Clothing Store	190 00	38,000	190 00	Rats and matches.	
"	9.00 p m	172	Appleton st	Wood.	H. Farrell	H. Farrell	Dwelling				Hot air balloon.	
"	9.45 p m	Still	North st	"	C. Hill	Several	"				Fire crackers set roof.	
"	11.57 p m	"	Eighth ave	"							Bon Fire.	
" 4	12.01 a m	127	" "	"							" "	
"	3.05 a m	Still	Palmer st	Brick.	McCarty Est	Lowell Packing Co	Provision Store				Fire crackers set awning.	
"	5.38 a m	53	Central st	"	F. B. Shedd	A. Babigian & Co	Fruit and Confry	75 00			Fire-works	
"	9.15 a m	32	Wauchusetts st	Wood.	F. Carroll	F. Carroll	Dwelling	575 00	600	575 00	Fire crackers.	
"	9.20 a m	93	"	"	"	"	"	246 56	1,000	246 56	" "	
"	11.50 a m	Still	Varney st	"	G. F. Morey	G. F. Morey	"	150 00	3,500	1 50	" "	
"	12.20 p m	9	Salem st	"	M. McGuire	M. McGuire	"				" "	
"	6.30 p m	Still	Stackpole st	"	Massachusetts Corp		Shed				" "	
"	5.15 p m	"	Cottage place	"	C. M. Allen		Dwelling	31 00	800	31 00	" "	
" 8	7.50 a m	"	Merrimack st	Brick.	Dartmouth College	Several	Offices and Stores				Stove smoking.	
" 9	2.57 p m	154	Willie st	"	Otis, Allen & Son	"	Mill				Automatic.	
" 12	10 15p m	Still	High st	Wood.	T. Carolin	"	Dwelling				Chimney.	
" 13	8.41 a m	25	Merrimack st	"	{ J. D. Hartwell & J. M. G. Parker Est	J. D. Hartwell & Co. { N. M Vinning	Grocery { Dining Saloon }	1,264 00	6,900	1,264 00	Smoking.	
"	10.58 p m	Tel.	Dracut	"	N. Bassett	N. Bassett	Paper Mill				Out of the City.	
" 14	11.03 a m	51	Central st	"	Robt. Simpson	Several	Dwelling	89 00	3,500	89 00	Defective smoke pipe.	
" 15	12 46 a m	46	Lakeview ave	"	Jas. Cahnin	T. P. Sullivan	Shoe Store	877 00	1,800	802 00	Rats and matches.	
" 15	6.00 p m	Still	Central st	"	Dr. J. J. McCarty	Dr. J. J. McCarty	Dwelling	22 40	4,000	22 40	Lightning.	
" 16	2.00 p m	"	Middlesex st	"	D. Whiting	W. McDonald	"	5 00			Spark set roof.	
"	7.03 p m	52	Moody st	"	A. Gregoire	Several	"				Careless use of matches.	
" 17	6 17 p m	51	Crosby st	"	P. Hartley	P. Hartley	"	32 00	1,000	32 00	Children playing with matches.	
" 20	6.48 p m	Still	Palmer st	"	A. Staples	M. J. Martin	Millinery	189 00	3,000	189 00	Gas jet and curtain.	
" 21	2.41 a m	42	Thorndike st	"	Telephone Co.		Pole				Crossed wires.	
" 23	1.50 a m	5	Northen st	"	Ryan Bros	Ryan Bros	Foundry	1,864 00	2,650	1,864 00	Unknown.	
"	" "		Suffolk st	"	Tom Fay	Several	Dwelling	100 00			From other fire.	
"	" "		" "	"	T. McDuffee	"	"	25 00			" " "	
" 23	5.40 p m	Tel.	Perkins st	"	G. W. Harris	"	"	35 00	2,500	35 00	Spark set roof.	
"	5.41 p m	28	" "	"	" " "	"	"				Same fire.	
" 24	2.00 p m	Still	Daly st	"	M. Bernstein	M. Bernstein	"	52 50	1,100	52 50	Defective flue.	
" 28	2.00 a m	"	Georgies ave	"	W. F. Lane	W. F. Lane	"	18 00	4,000	18 00	Lightning.	
"	2.45 p m	65	Lakeview ave	"	S. Gauthier	S. Gauthier	Stable	110 00	900	110 00	Children and matches.	
" 29	4.08 a m	42	Thornkike st	"	W. E. Livinston	W. E. Livingston	Grain Elevator	5,250 00	19,000	5,250 00	Lime.	
Aug. 2	11.00 a m	Still	Dover st	"	C. T. Fish	C. T. Fish	Dwelling	147 13	4,250	147 13	Oil lamp.	
" 4	2.55 p m	325	Suffolk st	Brick.	Mrs. E. Jewett	Several	"	7 14	5,600	7 14	Spark set roof.	
" 5	7.00 p m	Still	Andover st	"	H. T. Kendall	H. T. Kendall	"	7 50	1,750	7 50	Gas jet and curtain.	
" 9	12.32 p m	5	Fletcher st	"	Chas. Stamyan	Unoccupied	"	146 18	400	146 18	Incendiary.	
"	7.30 p m	Still	Myrtle st	"	Betsey G. Heald	Several	"	8 50	4,000	8 50	Gas leak	
" 12	8 15 a m	"	Ash st	"	A. G. Thompson	"	"				Ash barrel.	
" 14	12.40 a m	"	Gorham st	"	B. & M. R. R.		Bridge				Spark from locomotive.	
"	7.40 a m	"	West Third st	"	E. P. Bryant	E. P. Bryant	Blacksmith				Spark set roof.	
"	2.50 p m	Tel.	Wigginville	"	Mrs. Cooper	Mrs. Cooper	Dwelling				Out of the city.	
" 15	8.00 a m	Still	Gorham st	"	E. Kelley	Several	Dwelling and Stores	14 30	500	14 30	Match and awning.	
"	3.15 p m	"	Lakeview ave	"	Mrs. J. Tweed	"	Dwelling				Oil stove.	
" 16	12.00 a m	19	Linden st	"	Mrs. G. E. Mitchell	C. Durant	Stable	1,055 00	1,100	1,055 00	Unknown.	
"	12.23 a m	19	"	"	" " "	Goldis	"	134 00	200	134 00	Boy pulled second time.	
"	2.20 a m	Still	"	"	" " "	Cadey	"	78 85	300	78 65	Rekinled	
" 17	8.00 p m	"	Le Roy st	"	G. W. King	Carrie Gardner	Dwelling	10 00	500	10 00	Gas jet and curtain.	
" 18	1.00 a m	41	Belmont st	Stone.	F. Faulkner	F. Faulkner	"	50,000 00	50,000	50,000 00	Unknown, supposed electric wires.	
"	1.08 a m	Tel.	" "	"	"	"	"				Same fire.	
"	1.39 a m	2d	" "	"	"	"	"				Second alarm.	
"	10.20 p m	13	Merrimack st	Brick.	Wellman Est	Stores and Offices	Stores and offices	10 00	22,000		Combustion of rags in closet.	
" 19	2.00 p m	Still	Belmont st	Stone.	F. Faulkner						Ruins rekinled.	
" 20	8.15 p m	18	Cambridge st	Wood.	A. Falsom	Mrs. Aldrich	Dwelling	10 00	4,000	10 00	Oil lamp.	
" 21	5.00 p m	42	Middlesex place	"	W. E. Livingston	W. E. Livingston	Shed				Children and matches.	
" 22	2.01 a m	31	High st	Brick.	C. I. Hood	Unoccupied	Old school House				Unknown.	
" 23	11.01 a m	25	Merrimack st	"	Wyman Est	Several	Stores and Dwelling				Oil stove on top of cook store.	
" 25	7.55 a m	Still	Mammoth road		L. & S. R. R.		Car				Defective motor.	
" 27	10.50 a m	"	Central st	Brick.	P. H. Donahoe	P. H. Donahoe	Saloon				Electric motor.	
" 29	11.11 p m	Tel.	Suffolk st	Wood.	Coffee Bros						Electric switch board.	
" 30	8.38 p m	28	Cheever st	"	D. H. Laporte Agt	A. Maret	Dye House	6 50	6,500	6 50	Gas stove set partition.	
" 31	10.04 a m	73	Lamb st	"	D. F. Sullivan	J. Laferriere	Dwelling	69 40	700	69 40	Gasoline explosion.	
Sept. 3	12.41 a m	132	Hampshire st	Wood.	A. A. E. Rhodes	C. Zimmer	"	113 00	3,300	113 00	Rats nest in partition.	
"	7.45 p m	Tel.	Merrimack st	Brick.		F. G. Mitchell	Fancy Goods				Electric wire.	
"	9.31 p m	5	Suffolk st	Wood.	D. Reardon	G. F. Libby	Store Room	139 00	500	114 00	Soot falling from chimney.	
" 4	11.24 a m	125	Market st	"	A. C. Wheelock	Several	Dwelling				Oil stove and shawl.	
"	6.38 p m	Tel.	Appleton st	"	J. Tweed		Boarding House	15 00	2,800	15 00	Defective chimney.	
" 6	12.40 p m	Still	Tanner st	"	B. & M. R. R	P. Conners	Store House				Lime.	
" 7	7.16 a m	6	Broadway st	"	M. O'Hearn	Several	Dwelling				Old mattress in cellar.	
"	5.36 p m	Still	Read st	"	Archbishop Williams	St Michael's Parish	Stable				Unknown excelsior in cellar.	
"	9.00 p m	"	Fletcher st	"	Wilson		Dwelling				Oil lamp.	
" 8	12 30 a m	Tel.	Westford st		J. V. Fletcher		"				Out of the city.	
" 10	11.45 a m	Still	Howard st		B. & M. R. R.		"				Chimney.	
"	7.45 p m	"	Palmer st	Brick.	A. G. Pollard		Dry Goods				Electric wire	
" 11	4.05 p m	"	Fayette st	Wood.	O'Lanzhlin Est	Several	Dwelling				Stove smoking.	
" 12	12.05 p m	"	Merrimack st	"	Mrs. Wright	T. Vigeant	Awning	12 00	1,500	12 00	Match.	
"	8.02 p m	225	Little st	"	Mrs. Maloney	Several	Dwelling	5 00	1,000	5 00	Oil lamp.	
"	11.01 p m	Still	Merrimack st	Brick.	A. C. Wheelock	C. O. Landry	Shoe Store	125 50	1,000	125 50	Electric wire.	
"	11.23 p m	"	" "	"	" " "	" "	"				Same fire.	
" 14	10.03 p m	"	"	"	J. Robbins Est	J. W. Cassidy	Dry Goods	1,206 00	12,500	519 00	Unknown, supposed rats.	
"	10.06 p m	56	" "	"	" " "	" "	" "				Same fire.	
" 15	3.38 a m	Tel.	Dracut	Wood.	Merrima'k Woolen Co		Boarding House				Out of the city	
" 19	10.09 a m	154	Rock st	Brick.	Otis Allen & Son	Several	Mill				Overheat thermostat.	
" 22	1.23 p m	Still	Chestnut st	Wood.	J. King	J. King	Dwelling				Children and matches.	
" 25	7.19 a m	"	Market st		Cahill Bros	Cahill Bros	Blacksmith				Chimney.	
" 29	7.29 a m	6	Fulton st		P. Whiting	Unoccupied	Store House				Spark set roof.	
Oct. 2	11.00 p m	Still	Merrimack st	Brick.	A. G. Pollard						Electric wire.	
" 10	11.35 a m	261	Crosby st	Wood.	U. S. Bunting Co	U. S. Bunting Co	Machine Shop	37 00	2,050	37 00	Spark set roof.	
" 11	1.02 p m	83	Frye st	"	Mrs. Turner		Dwelling				Rags from chimney hole.	
"	3.22 p m	32	Seventh st	"	J. Bailey Est	Several	"				Shingles and hot stove.	
" 12	7 00 p m	Tel.	Washington st	"	C. Upton		"				Chimney.	
" 15	8.05 p m	Still	Central st	"	Fisk & Spalding	Fisk & Spalding	Awning	15 00			Fire-works.	
" 16	12.40 p m	"	Merrimack st	Brick.	W. Sherburne	A. N. Harmon	Pictures Frames	11 00	2,000	11 00	Gas jet.	
" 17	12.05 a m	35	Lawrence st	Wood.	Mr. T. Wentworth		Dog House	10 00			Incendiary.	
"	7.05 p m	19	Gorham st	Brick.	M. Corbett	J. Drain	Fancy Goods	2,195 00	2,500	195 00	Candle left in box.	
" 20	4.01 p m	7	Worthen st		Associate Corporation	Mrs. L. M. Baldwin	Dress Maker	80 00	60,000	30 00	Matches and curtain.	
" 23	10.59 a m	241	Boyleston st	Wood.	E. D. Jefferson	E D. Jefferson	Dwelling	1,774 56	3,000	1,774 56	Gas heater under boiler set partition.	
" 26	3.54 a m	Tel.	" "	"	" " "	Mrs. Ripley	"	35 00	50	35 00	Rekinled.	
" 28	11 45 a m	225	Suffolk st	"	J. B. Swift	Several	"				Wood box and hot stove.	
" 29	4.35 a m	Tel.	Riverside st	"			"				One of the city.	
"	4.41 p m	61	Tewksbury	"			"				Same fire.	
Nov. 2	12.05 p m	Still	Gorham st	Wood.	E. Kelley	A. Brennan	Boarding House	55 00	5,000	55 00	Careless smoking.	
" 5	5.55 p m	"	Lawrence st	"	J. Ryan	Several	Dwelling	5 00	3,000	5 00	Defective chimney.	
" 6	12.58 a m	53	Middlesex st	Brick.	C. J. Glidden	"	Bank and Offices	125 00	51,000	125 00	Electric wire crossed with tel. wire.	
" 7	4.41 p m	Still	North st	Wood.	M. Garity Est	"	Dwelling				Children and matches, mat. in cellar.	
"	7.00 p m	"	Broughton ave	"	Lindham Est	"	"	5 00	2,400	5 00	Defective chimney.	
"	7.20 p m	113	John st	Brick.	J. Nesmith Est	"	Stores and Offices	53 42	10,000	43 42	Combustion of rags in closet.	
"	8.56 p m	Tel.	Rock st		J. Hanson		Job Wagon	25 00			Fire-works.	
" 8	12.25 a m	165									False alarm.	
" 10	7.00 a m	Still	Chapel st									Thos. Inglesby 3 years old, playing with matches.
" 11	9.20 a m	Tel.	Rolfe st	Brick.	C. H. Allen	C. H. Allen	Dwelling				Chimney.	
" 13	7.34 a m	51	Cedar st	Wood.	E. B. Pierce	Several	"				Shingles in cellar.	
" 15	12.22 a m	23	Lakeview ave		Callahan Est	"	Stores and Dwelling	61 00	4,000	61 00	Defective chimney.	
"	12.54 a m	139	Cross st		Cummings Est	"	Dwelling	40 50	1,100	40 50	Straw in attic.	
"	1.40 a m	Tel.	Lakeview ave		Callahan Est	"	Stores and Dwelling				Defective chimney.	
"	3.30 a m	"	" "	"	" "	"	" "				" "	
"	6.00 p m	Still	Gorham st		J. McAleer	J. McAleer	Dwelling				"	
" 17	11.42 p m	37									False alarm.	
" 18	7.50 a m	Still	Fifth st	Wood.	Cole & Nichols		Dwelling				Chimney.	
"	3.07 p m	84	Royal st	"	Geo. S. Mitchem	Geo. S. Mitchem	"	65 25	2,500	65 25	Rats nest in partition.	
" 19	7.00 p m	Still	Liberty st	"	D. Gage	C. E. Smart	"	20 00	1,500	20 00	Gas jet and curtain.	
" 20	7.30 p m	"	Princeton st	"	Mrs. C. Church	Mrs. C. Church	"	10 00	6,000	10 00	Gas jet and curtain.	
" 21	12.45 p m	"	Gorham st	"	J. Warburton	J. Warburton	Hotel	9 00	6,500	9 00	Rats nest in partition.	
"	3.25 p m	Tel.	Mass. corp		Massachusetts Co	Massachusetts Co	Cotton Bales	9,416 00	70,000	9,416 00	Combustion.	
"	3.40 p m	113	" "		" "	" "	"				Same fire.	
" 22	7.43 p m	53	Central st	Brick.	E. A. Smith	Bartlett & Dow	Hardware				Chimney.	
" 23	3.30 p m	Still	Newhall st		Massachusetts Co		Cotton Bales				Rekinlled.	
"	4.00 p m	"	Hancock ave	Wood.	E. Pelletier	Several	Dwelling	9 00	9,000	9 00	Clothes in closet.	
" 24	12.24 a m	165	Lakeview ave								False alarm.	
"	1.24 a m	Aut.	Tanner st	Brick.	G. Runels	American Croquett Co	Croquett Works				Wires get crossed.	
" 25	8.48 p m	Still	Central st	"	Mrs. Hutchings	Mrs. Messer	Boarding House	20 44	3,000	20 44	Hot stove set floor.	
" 26	6.01 a m	"	Cabot st	"	P. Vigeant	Several	Dwelling	30 00	4,000	15 00	Pistol shot set bed.	
Dec. 2	1.43 p m	Tel.	Dummer st	Wood.			"				Chimney.	
"	8.30 p m	Still	Common st	"	Ed. Walsh	Several	"				"	
" 4	3.13 p m	131	Fayette st	"	W. E. Somes Est		"				Children and matches.	
" 5	12.28 p m	125	Suffolk st	"	C. O'Hearn	Several	"	14 00	1,000	14 00	Combustion of rags.	
"	12.59 p m	Still	" "	"	" "	"	"				Smoke in partition.	
"	3.15 p m	"	" "	"	" "	"	"				Rekinlled.	
" 7	10.00 a m	"	Wentworth ave	"	J. A. Weinback	J. A. Weinback	"	4 00	4,000	4 00	Paper in chimney hole.	
"	1.33 p m				W. Edwards	W. Edwards	Foundry				Combustion oily waste.	
" 8	2 45 p m	"	Chapel st	"	O'Donnell Bros	O'Donnell Bros	Grocery & Dwellings	760 00	2,500	760 00	Unknown.	
"	2.48 p m	19	" "	"	" "	" "	" "	750 00	750	750 00	Same fire.	
"	5.00 p m	Still	" "	"	" "	" "	" "				Smoke.	
"	5.20 p m	"	" "	"	" "	" "	" "				Rekinlled in bunch of rags.	
" 9	7.45 a m	222									No school.	
"	10.45 a m	Tel.	Pawtucket st	"	Locks & Canals	J. Carr	Dwelling	125 37	600	50 37	Wood box and stove.	
"	12.45 a m	222									No school.	
"	1.31 a m	184	Marginal st	"	H. S. Bacon	Several	Dwelling	15 00	1,500	15 00	Unknown.	
" 14	6.00 p m	Still	Market st	Brick.	J. Tyler Stevens	Offutt & Pierce	Furniture Store	100 00	6,000	100 00	Match and lounge.	
"	10 17 p m	Tel.	Merrimack st	"	J. Nesmith Est	C. K. Fisk	Fancy Goods	10 60	10,000	10 60	Rats nest in partition.	
"	10.20 p m	13	" "	"	" " "	" " "	" "	90 82	4,500	90 82	Same fire.	
" 15	10.23 p m	Tel.	Davidson st	Wood.	Mrs. Harrington	Mrs. Harrington	Dwelling				Chimney.	
" 16	12.45 p m	222									No school.	
"	5.27 p m	Tel.	Summer st	"	P. Parker	Several	Dwelling				Chimney.	
" 17	7.20 p m	Still	Fletcher st	"	W. Richardson	W. Richardson	"				"	
" 18	9.23 a m	28	Tucker st	"							Hot ashes in box of excelsior.	
" 19	2.20 p m	Still	Broadway st	"		Mrs. E. F. Seavey	Dwelling	7 00	300	7 00	Stove and clothing.	
" 20	12.30 a m	Still	Merrimack st	Stone.	A. Hosford	Several	Stores and Offices	219 00	35,500	219 00	Unknown.	
"	2.45 p m	Tel.	Aiken ave	Wood.	Locks & Canals		Dump				Boys.	
" 21	3.03 p m	Still	High st	"	E. Hapgood & Son	E. Hapgood	Mattress Manufactn'g				Pillows and stove pipe.	
"	8.22 p m	72	Revere st	"	M. Aldrich Est	Several	Mission House				Unknown.	
" 23	5.45 p m	Still	Mt. Washington st.	"	J. Cushing	J. Cushing	Dwelling				Chimney.	
" 24	5.45 p m	37	Bassett st	"	Greenwood Bros	Several	"				"	
" 25	10.09 a m	Tel.	Worthen st	"	P. Meehan	"	"				Defective chimney.	
"	3.15 p m	Still	Sixth st	"	Mrs. E. Morey	Mrs. E. Morey	"				Unknown.	
"	7.25 p m	39	La Grange court	"	R. Sykes	Several	"	78 00	4,000	78 00	Rats in partition.	
" 28	10.00 a m	Still	Central st	"	R. Barris	"	"				Overheated stove.	
"	11.13 a m	"	" "	"	Locks & Canals	M. D. Brown	Cigar Store	624 25	5,000	624 25	Gas leak.	
"	11.16 a m	12	" "	"	" "	" "	"				Same fire.	
"	1.19 p m	Still	Andover st	"	J. Donahoe	J. Donahoe	Dwelling	24 00	1,500	24 00	Defective chimney.	
"	6.05 p m	"	Lawrence st	"	Mrs. T. Wentworth	Mrs T. Wentworth	"	24 00	4,000	24 00	Chimney.	
" 29	7.30 a m	"	Kirk st	Brick.	M. Whittier Est	Dr Benner	"	59 65	2,500	59 65	Bed clothes and stove pipe.	
"	7.35 a m	21	" "	"	" " "	" "	"				Same fire.	
"	3.02 p m	Tel.	Lawrence st	Wood.	Wamesit Power Co	R. W. Kendall	Print and Dye Work.				Tube blowed out of boiler.	
" 31	4.06 a m	42	Middlesex st	"	W. E. Livingston	Wm. McLarney	Stove Store				Saw dust box around soil pipe.	
"	10.15 a m	Still	School st	"	Geo. Flint	Several	Dwelling	14 94	1,500	14 94	Hot stove and clothing.	

Total Loss $124,500.41. Insurance $1,324,166.00. Insurance Paid $116,364.41. Loss above Insurance $8,136.00.

FIRE DEPARTMENT,

JANUARY 1, 1897.

CHIEF ENGINEER.

EDWARD S. HOSMER { Office, Palmer Street Engine House.
Residence, 202 Westford Street.

ASSISTANT ENGINEERS.

James F. Norton . . . Residence, 18 Ames Street
George F. Salmon . . Residence, 95 Mt. Washington Street
Edward Meloy . . . . . Residence, Charles Street
Henry W. Burton . . . Residence, Kimball Avenue

CHIEF'S DRIVER.

Harry B. Sanders . Residence, Palmer Street Engine House

TELEGRAPH OPERATOR.

Henry C. Fernald . Residence, Palmer Street Engine House

COMMITTEE ON FIRE DEPARTMENT, 1896.

ALDERMEN—Tryder and Tucke.
COUNCILMEN—Miskella, Hallett, and Eastman.

ENGINE COMPANY NO. 1.

TWELVE MEMBERS. HOUSE ON GORHAM STREET.

Badge.	Rank.	Name	Age	Occupation.	Joined Dep't.	Residence
15....	Captain	C. D. Foley.....	42	Carpenter	June, 1879 ..	31 Newhall Street
11....	Lieutenant.....	T. W. Collins.....	40	Permanent	April, 1884..	Engine House
1....	Clerk	Geo. W. Lovett.....	46	Driver, Wagon.	Dec., 1875..	Engine House
119....	Engineer.....	J. W. Jantzen.....	43	Permanent	Feb., 1884..	Engine House
12...	Driver	R. O'Connell.....	41	Driver, Engine.	May, 1878 ..	Engine House
17....	Ass't Engineer	T. McNamara.....	52	Machinist	April, 1884..	Lawrence Street
19....	Hoseman	C. F. Donohoe	34	Teamster... ..	April, 1894..	63 Pine Hill Street
16....	Hoseman	T. Carruthers.....	51	Stamper.....	April, 1884..	Engine House
14....	Hoseman	P. Curtin.....	44	Moulder	May, 1874 ..	Lawrence Street
18....	Hoseman	J. Lowney.....	28	Clerk.....	July, 1892 ..	Gorham Street
10....	Hoseman	B. J. Brady.....	39	Permanent	Jan., 1893 ..	Engine House

SCHEDULE OF PROPERTY

Belonging to the City, in care of Engine Company No. 1.

Engine built by Union Machine Company, Fitchburg, Mass; has two double-acting steam cylinders, 7 1-8 inches in diameter, 8 inch stroke, two double-acting pumps, 4 3-8 inches in diameter, arranged to work separately or together; weight when loaded, 7180 pounds; 1 one-horse hose wagon, built by Abbott-Downing Co, Concord, N. H.; 4 horses, 1 set double and 3 single harnesses, 1 pair lead bars, 5 blankets, hose sleigh, fuel wagon, four-way chuck, branch connection; 3 pipes with stop nozzles, 12 1-2 inch caps; 1 5x2 1-2 inch reducer, 4 small reducers, 6 spanners, 8 lanterns, 4 wrenches, 6 ladder straps, 2 bars, 2 axes, bucket, 1750 feet 2 1-2 inch cotton hose, 100 feet 1-inch rubber hose, set blocks, extinguisher, 6 beds and bedding, mirror, 2 bureaus, 18 chairs, 3 shovels, fork, 4 brooms, 30 feet of rope, 2 pails, 1 12-foot ladder, step ladder, steam boiler, coal hod, 2 ash cans, 4 boxes, 2 blocks, jack screw, carriage jack, copper goose neck, basket work bench, vise, chisel, pair shafts, hose washer, three horse pole, 6 spittoons, 2 oil cans, 26 badges, 12 set buttons, 3 insignia, 3 stable cans, 6 smoke protectors, and all tools for cleaning horses and repairing engines.

ENGINE COMPANY No. 2.

TWELVE MEMBERS. HOUSE ON BRANCH STREET.

Badge.	Rank.	Name.	Age	Occupation.	Joined Dept.	Residence
20....	Captain	A. C. Stearns	56	Permanent	Nov. 1862 ..	Engine House
21....	Lieutenant.....	F. B. Akers.....	42	Permanent	May, 1878 ..	Engine House
2....	Clerk	H. Boynton.....	45	Driver, Wagon.	April, 1869..	Engine House
29....	Engineer	C. S. Hibbert.....	51	Permanent	Nov., 1865 ..	Engine House
90...	Driver	F. Boynton.....	35	Driver, Engine.	Dec., 1882 ..	Engine House
28....	Hoseman	A. Jamison.....	39	Painter	Dec., 1894 ..	52 Lane Street
22....	Ass't Engineer	H. R. Morrison.....	37	Machinist	July, 1882 ..	Merrimack Street
23....	Hoseman	E. E. Maynard.....	35	Clerk	May, 1883 .	18 East Pine Street
27....	Hoseman	A. S. Maynard.....	43	Carpenter	Nov., 1884..	18 East Pine Street
25....	Hoseman	W. H. Oakes.....	31	Machinist	Dec., 1893 ..	36 Smith Street
24....	Hoseman	W. L. Hills.....	31	Bottler.....	March, 1891	156 Branch Street
26....	Hoseman	C E Alway.....	32	Carpenter	Feb., 1889 ..	45 Summer Street

SCHEDULE OF PROPERTY

Belonging to the City, in care of Engine Company, No. 2.

Engine built by Manchester Locomotive Works, Manchester, N. H.; weight when loaded, 7,600 pounds; 6 7-8 inch cylinder, 8-inch stroke, 4 1-2 inch double-acting pumps, two-horse hose carriage built by Leverick & Co., New York; 1600 feet 2 1-2 inch cotton hose, 50 feet 3-4 inch rubber hose, hose sleigh, fuel wagon, four-way chuck, branch connection, 4 pipes, 6 spanners, 6 ladder straps, 2 hydrant wrenches, axe, 2 bars, jack screw, lead bars, three-horse pole, 6 coal boxes, 12 chairs, 3 mirrors, 3 clocks, work bench, vise, 5 beds and bedding, lathe, heater and tank, steam boiler, 2 sets blocks, 4 ash cans, table, 24 badges, 16 sets buttons, 8 insignia, hose washer, pair skids, pair steps, extinguisher, 3 smoke protectors, 4 stable cans, and all tools for cleaning horses and repairing engine.

ENGINE COMPANY No. 3.

TWELVE MEMBERS. HOUSE ON PALMER STREET.

Badge.	Rank.	Name.	Age	Occupation.	Joined Dept.	Residence
30....	Captain	F. Hoyt.....	48	Permanent	Aug , 1873 ..	Engine House
31....	Lieutenant	O. A. Knapp.....	32	Permanent	July, 1889 ..	Engine House
3....	Clerk	L. C. Brainard.....	38	Driver, Wagon.	Feb., 1889 ..	Engine House
33....	Engineer.....	M. I. Collins.....	41	Engineer.....	April, 1888..	Engine House
133....	Driver	B. C. Reed.....	43	Driver, Engine.	Aug., 1885 ..	Engine House
34....	Ass't Engineer	J. G. Merchant.....	58	Engineer	April, 1887..	Westford Street
37....	Hoseman	F. E. Roark.....	47	Lighter.....	July, 1875 ..	Middle Street
38....	Hoseman	G. T. Halstead.....	39	Permanent	Nov. 1883 ..	Engine House
35....	Hoseman	J. D. Ismond.....	29	Packer.....	March, 1894	Andover Street
32....	Hoseman	F. E. Turner.....	33	Clerk.....	July, 1892 ..	Hamilton Corp.
39....	Hoseman	H. Coulam.....	43	Second Hand..	March, 1876	Hamilton Corp.
36....	Hoseman	A. E Dearth.....	36	Carpenter	June, 1891 ..	Dutton Street

SCHEDULE OF PROPERTY

Belonging to the City, in care of Engine Company, No. 3.

Engine built by Manchester Locomotive Works, Manchester, N. H.; weight when loaded, 9,300 pounds; 35 feet suction hose with hydrant couplings, 1 one-horse hose wagon, 5 horses, set three-horse hitch and set double harnesses, 4 halters, 5 blankets, 1,200 feet 2 1-2 inch cotton hose, four-way chuck and reducer, reducer and cap, six-way Lowry chuck, 4 pipes, 2 stop nozzles, 2 branch connections, 2 hydrant wrenches, 4 spanners, bar, shovel, 4 ladder straps, 6 lanterns, 3 stable cans, 6 beds and bedding, 2 mirrors, 2 clocks, 15 chairs, hose rope, monkey wrench, carriage jack, 26 badges, 12 sets buttons, 8 insignia, hose washer, extinguisher, 3 smoke protectors, and all tools for cleaning horses and repairing engine.

ENGINE COMPANY No. 4.

TWELVE MEMBERS. HOUSE ON HIGH STREET.

Badge.	Rank.	Name.	Age	Occupation.	Joined Dept.	Residence
40....	Captain	J. E. Burns	36	Permanent	Feb. 1882 ..	Engine House
42....	Lieutenant	J. E. Sullivan.....	44	Permanent	May, 1883 ..	Engine House
4....	Clerk	W. King..... ..	54	Driver, Wagon	Nov., 1883..	Engine House
41....	Driver	J. J. Harrington.....	46	Driver, Engine.	Nov., 1869..	Engine House
134....	Engineer.....	F. F. Prescott.....	37	Engineer.....	July, 1893 ..	Engine House
45....	Ass't Engineer	C. Morse.....	55	Engineer.....	May, 1865 ..	Fairmount Street
44....	Hoseman	M. Connors.....	46	Plasterer.....	March, 1883	Pleasant Street
43....	Hoseman	W. T. Dolan.....	25	Plumber	Nov. 1894 ..	Concord Street
46....	Hoseman	J. P. Smith..... ..	33	Clerk	Sept., 1886..	Concord Street
48....	Hoseman	T. Tighe.....	39	Finisher	Dec., 1888..	Concord Street
49 ...	Hoseman	B. F. Freeman.....	52	Lighter	Jan., 1893 ..	Fort Hill Ave.

SCHEDULE OF PROPERTY

Belonging to the City, in care of Engine Company, No. 4.

Engine built by Manchester Locomotive Works, Manchester, N. H.; weight when loaded, 8,000 pounds ; 6 7-8 inch cylinder, 8-inch stroke, 4 1-2 inch double acting pumps; one-horse wagon built by Abbott-Downing Co., Concord, N. H. ; 5 horses, set three-horse hitch and set double harnesses, 1,500 feet cotton hose, 50 feet rubber hose, carriage jack, 2 clocks, 2 mirrors, table, 16 chairs, 2 dusters, 6 shovels, 4 pails, 5 spittoons, fuel wagon, 6 beds and bedding, bureau, 12 set buttons, 26 badges, 4 insignia, 12 spanners, 5 ladder straps, jack screw, 7 coal boxes, 50 feet rope, 1 5x2 1-2 inch reducer, hose washer, extinguisher, 5 blankets, bench and vise, steam boiler, heater and boiler, step ladder, 3 bars, 5 pipes, 2 pair reducing couplings, three-horse pole, oil tank, four-way chuck, branch connection, 3 ash cans, 4 smoke protectors, set blocks, Hale Water Tower, snow shovels, brooms, and all tools for cleaning horses and repairing engine.

ENGINE COMPANY No. 5.

TEN MEMBERS. HOUSE MAMMOTH ROAD, PAWTUCKETVILLE.

Badge.	Rank.	Name.	Age	Occupation.	Joined Dept.	Residence
152....	Captain	E. W. Bartlett.....	49	Permanent	May, 1883 ..	Engine House
52....	Lieutenant ...	J. H. Joyce.....	54	Permanent	June, 1884 ..	Engine House
50....	Driver	G. F. Flint.....	35	Permanent	Aug., 1892 ..	Engine House
51....	Engineer.....	C. L. Brown.....	43	Permanent	Jan., 1893 ..	Engine House
53....	Ass't Engineer	J. P. Fowler.....	48	Carpenter	May, 1883 ..	Mammoth Road
55...	Hoseman	A. F. Cogger	52	Piper	May, 1883 ..	White Street
57....	Hoseman	S. S. Page.....	48	Mason	May, 1888 ..	Second Avenue
58....	Hoseman	J. J. Frazier.....	40	Moulder	June, 1892 ..	Varnum Avenue
56 ...	Hoseman	R. B. Seeton	47	Brass Finisher	Aug, 1892..	Eighth Avenue
54....	Hoseman	J. J. McMannimon .	25	Machinist	Jan., 1893 ..	Seventh Avenue

SCHEDULE OF PROPERTY

Belonging to the City, in care of Engine Company, No. 5.

Steamer built by American Fire Engine Company, Seneca Falls, N. Y.; weighs 7,350 pounds; two-horse hose wagon built by J. H. Swett, Lowell, Mass., weighs 4,300 pounds; 2,400 feet cotton hose, 50 feet rubber hose, four-way chuck, 3 hydrant wrenches, carriage jack, 6 horses, 6 harnesses, 2 clocks, 2 mirrors, table, 24 chairs, 2 dusters, 7 shovels, 4 pails, 6 spittoons, 7 beds and bedding, 26 badges, 12 set buttons, 8 insignia, 4 ash cans, 4 stable cans, 5 ladders, 6 spanners, 4 ladder straps, jack screw, 6 coal boxes, hose washer, 2 extinguishers, work bench and vise, 3 hooks, 4 pipes, 3 axes, 6 lanterns, 2 three-horse poles, 6 horse blankets, fuel wagon, 2 monkey wrenches, 4 hay hooks, 6 smoke protectors, 60 gallon oil tank, and all tools for cleaning horses and reparing engine.

ENGINE COMPANY No. 6.

TWELVE MEMBERS. HOUSE ON FLETCHER STREET.

Badge.	Rank.	Name.	Age	Occupation.	Joined Dept.	Residence.
135....	Captain	D. J. Hurley.....	45	Permanent	May, 1879 ..	Engine House
63....	Lieutenant	E. W. Fletcher	43	Moulder	June. 1874 ..	L. M. S. Corp.
6...	Clerk	J. A. Fletcher	40	Driver, Wagon	May, 1880...	Engine House
61....	Hoseman	T. H. Rogers.....	45	Permanent	Dec., 1888 ..	Engine House
64....	Hoseman	E. F. Saunders	31	Baker.....	Feb., 1890 ..	Mt. Washington St.
65....	Hoseman	J. J. Murray.....	45	Cabinet Maker	July, 1885 ...	Bowers Street
60....	Driver	S. R. Pendexter	44	Driver, Engine	June, 1892 ..	Engine House
62....	Engineer.....	F. G. Collins	38	Permanent	Dec, 1889...	Engine House
67....	Hoseman	E. A. Walsh.....	25	Plumber	June, 1895 ..	Engine House
69....	Ass't Engineer	E. Perham	36	Box Maker....	July, 1892 ...	Common Street
66....	Hoseman	R. E. Burns.....	31	Cabinet Maker	Dec., 1888...	Nichols Street
79....	Hoseman	T. F. Maguire.....	30	Clerk	July, 1892 ...	Butterfield Street

SCHEDULE OF PROPERTY

Belonging to the City, in care of Engine Company, No. 6.

Engine built by Manchester Locomotive Works, Manchester, N. H.; weight when loaded, 9,300 pounds; 36 feet suction hose, hydrant couplings, one-horse hose wagon, 4 horses, 5 harnesses, bridle, extinguisher, 1,750 feet cotton hose, 4 pipes, 2 stop nozzles, 10 spanners, four-way chuck, two-way chuck, two-way connection with valves, reducer, 3 brooms, 4 hydrant wrenches, carriage jack, 3 pails, 3 stable cans, jack screw, 3 ladder straps, 5 blankets, 2 dusters, ladder, step ladder, brush, 11 lanterns, 8 spittoons, 2 shovels, 19 chairs, 7 beds and bedding, 5 mops, window brush, table, 2 dust pans, 2 axes, 1 ash can, 2 clocks, 3 mirrors, gas stove, steam boiler, 26 badges, 12 set buttons, 4 insignia, hose washer, 1 1-2 tons steamer coal, 2 benches and vises, 100 feet hose, oil tank, fork, 6 smoke protectors, and all tools for cleaning horses and repairing engine.

HOSE COMPANY No. 7.

NINE MEMBERS. HOUSE ON CENTRAL STREET.

Badge.	Rank.	Name.	Age	Occupation.	Joined Dept.	Residence.
72	Captain	E. Cunningham	49	Steam Fitter	Aug., 1866	82 Charles Street
70	Lieutenant	C. Riley	41	Permanent	May, 1880	Hose House
7	Clerk	E. O'Connell	39	Driver	Aug , 1878	Hose House
75	Hoseman	J. Sullivan	30	Permanent	July, 1892	Hose House
73	Hoseman	P. Emerson	38	Carpenter	Feb., 1883	49 Cedar Street
74	Hoseman	E. Crowley	42	Coppersmith	Feb., 1883	Hose House
71	Hoseman	P. McLaughin	41	Permanent	Aug., 1888	Hose House
76	Hoseman	J. Freeman	39	Lamp Lighter	Oct., 1888	19 Keene Street
77	Hoseman	J. J. Emerson	34	Upholsterer	July, 1889	3 Mead Street

SCHEDULE OF PROPERTY

Belonging to the City, in care of Hose Company, No. 7.

One two-horse hose carriage with pole and shafts, hose sleigh, 2 horses, 2 blankets, set double harnesses, 2 forks, 2 brooms, 1,600 feet cotton hose, 50 feet rubber hose, 2 pipes and stop nozzles, 6 lanterns, 2 axes, four-way and two-way chuck, 2 wrenches, reducer, coupling, cap, 4 spanners, 4 ladder straps, branch connection, 2 dusters, carriage jack, 2 stable cans, 5 beds and bedding, 12 chairs, carpet, 6 spittoons, 2 clocks, 2 oil cans, extinguisher, 4 shovels, 2 pails, 2 mirrors, hose washer, pair steps, wagon, 3 bridles, table, 20 badges, 9 set buttons, 4 insignia, boiler, 6 smoke protectors, and all tools for cleaning horses.

HOSE COMPANY No. 8.

NINE MEMBERS. HOUSE ON MERRIMACK STREET.

Badge.	Rank.	Name.	Age	Occupation.	Joined Dept.	Residence.
150....	Captain	W. J. Flynn.....	44	Permanent	April, 1885..	Hose House
83....	Lieutenant	D. H. Crowley.....	36	Permanent	Feb., 1890...	Hose House
87....	Hoseman	W. F. Tighe.....	34	Plumber	Sept., 1892..	Butterfield Street
88....	Hoseman	W. F. Dana.....	32	Machinist	Oct., 1888...	64 L. M S. Corp.
154 ...	Clerk	B. F. Dunn	34	Driver	Feb., 1890...	Hose House
89....	Hoseman	D. F. Smith.....	37	Shoemaker	Jan., 1893...	230 Market Street
85....	Hoseman	L. S. Kimball.....	46	Roll Coverer ..	May, 1869...	16 John Street
86....	Hoseman	T. F. Welch.....	46	Cabinet Maker	June, 1884 ..	49 Common Street
136....	Hoseman	J. F. Convery	43	Carpenter	Jan., 1893 ..	39 Adams Street

SCHEDULE OF PROPERTY

Belonging to the City, in care of Hose Company, No. 8.

Two-horse hose carriage, two-horse hose sleigh, 2 horses, 1 set double harnesses, 2 bridles, 2 blankets, extinguisher, 1,650 feet cotton hose, 2 pipes and shut-off nozzles, 6 spanners, four-way chuck, bar, axe, 3 ladder straps, 3 mops, 3 wrenches, 2 stable cans, 2 dust pans, carriage jack, 3 brooms, 2 ash cans, step ladder, 3 shovels, 6 cuspidores, 2 clocks, water cooler, 2 mirrors, 2 pails, two dusters, rubber mat, 11 chairs, 5 beds and bedding, table, 5 rugs, boiler, 20 badges, 9 set buttons, 4 insignia, window brush, scrub brush, hose washer, half-peck measure, 2 forks, 50 feet rubber hose, 4 lanterns, 5 smoke protectors, and all tools for cleaning horses.

HOSE COMPANY No. 9.

NINE MEMBERS. HOUSE ON LINCOLN STREET.

Badge.	Rank.	Name.	Age	Occupation.	Joined Dept.	Residence.
91...	Captain	S. E. Bartlett.....	48	Permanent	Nov., 1867...	Hose House
92....	Clerk	P. S. Webster.....	49	Driver	May, 1884..	Hose House
93....	Hoseman	G. H. Chapman	41	Wood Dealer..	May, 1885...	Lincoln Street
94....	Lieutenant	J. Baxter.....	38	Permanent	July, 1883 ...	Hose House
95....	Hoseman	J. E. Wilkins.....	49	Machinist	July, 1883...	6 Main Street
96....	Hoseman	P. J. Clune	35	Machinist	Nov. 1890...	Hose House
97....	Hoseman	C. A. Rock	37	Butcher	May, 1893...	92 Washington St.
98....	Hoseman	E. F. Grady.....	35	Folder	May, 1893...	282 Lincoln Street
99....	Hoseman	F. A. Kappler	38	Carpenter	May, 1893...	203 Lincoln Street

SCHEDULE OF PROPERTY

Belonging to the City, in care of Hose Company, No. 9.

One-horse hose wagon, sleigh, 2 horses, 2 harnesses, 2 blankets, four-way chuck, 2 wrenches, 2 pipes and stop nozzles, 5 spanners, bar, 3 ladder straps, 2 lanterns, 1,250 feet cotton hose, 25 feet rubber hose, carriage jack, 2 clocks, mirror, table, 20 chairs, stable can, duster, 3 shovels, 3 pails, 5 spittoons, 6 beds and bedding, 23 badges, 9 set buttons, 8 insignia, dust pan, brush, 2 brooms, oil can, 7 mats, extinguisher, steam boiler, hose washer, 6 smoke protectors, and all tools for cleaning horses.

HOSE COMPANY No. 10.

NINE MEMBERS. HOUSE ON FOURTH STREET.

Badge.	Rank.	Name.	Age	Occupation.	Joined Dept.	Residence.
160....	Captain	C. F. Hemenway....	47	Permanent	Sept., 1875..	Hose House
163....	Lieutenant	F. Mansur	47	Carpenter	Nov, 1874..	83 Fifth Street
161....	Clerk	A. E. Kidder	41	Driver	Oct., 1887...	Hose House
166 ...	Hoseman	D. Common.....	47	Carpenter	March, 1896	Beach Street
164....	Hoseman	J. H. Whitely.....	27	Carpenter	Nov., 1894..	39 Third Street
165....	Hoseman	F. D. Morey.....	32	Carpenter. ...	Nov., 1887 ..	Methuen Street
162....	Hoseman	J. McCafferty.....	33	Permanent	Nov., 1887..	Hose House
168....	Hoseman	Fred Mansur.....	38	Carpenter	Oct., 1889...	21 Third Street

SCHEDULE OF PROPERTY

Belonging to the City in care of Hose Company No. 10.

Two-horse hose carriage, 2 horses, set double harnesses, 2 bridles, 2 blankets, 1,550 feet cotton hose, 25 feet rubber hose, 2 pipes and stop nozzles, reducer, two-way and four-way chuck, branch connection, reducing coupling, cap, 8 spanners, 2 wrenches, 6 lanterns, 2 bars, ladder, axe, carriage-jack, stable can, 4 beds and bedding, 20 chairs, table, clock, 2 pails, 2 shovels, 3 brooms, 2 forks, duster, sifter, 4 ash cans, 2 oil cans, 3 spittoons, set blocks, 140 feet rope, pulley, hose sleigh, fuel wagon, steam boiler, pair steps, 6 smoke-protectors, 9 set buttons, 20 badges, 4 insignia, hose washer and all tools for cleaning horses.

HOSE COMPANY No. 11.

NINE MEMBERS. HOUSE ON LAWRENCE STREET.

Badge.	Rank.	Name.	Age	Occupation.	Joined Dept.	Residence
200....	Captain.....	J. J. Jennings.....	38	Permanent	Nov., 1883 ..	Hose House
201....	Lieutenant	J. J. Dolan	33	Permanent	Jan., 1888...	Hose House
202....	Clerk..... ..	J. Bamford.....	38	Driver	Dec., 1889 ..	Hose House
203....	Hoseman	E Jennings	33	Machinist	Jan., 1893...	859 Lawrence Street
204....	Hoseman	W. H. Meloy.....	48	Blacksmith	Dec , 1896 ..	358 Central Street
205....	Hoseman	T. J. Dwyer.....	34	Machinist	Jan., 1893...	534 Central Street
206....	Hoseman	George Buck.....	31	Belt Maker....	Jan., 1893...	742 Lawrence Street
207....	Hoseman	J J. Doherty.....	34	Fruit Dealer ..	Jan , 1893...	18 Mill Street
208....	Hoseman	J. F. Welch.....	31	Piper.....	Jan., 1893...	417 Lawrence Street

SCHEDULE OF PROPERTY

Belonging to the City, in care of Hose Company, No. 11.

One one-horse hose wagon, 2 horses, 2 harnesses, 2 blankets, extinguisher, 1,500 feet cotton hose, 50 feet rubber hose, 2 pipes and stop nozzles, 4 spanners, four-way chuck, bar, 3 brooms, carriage jack, 2 pails, 2 ladder straps, 2 dusters, 2 brushes, 2 lanterns, 2 pipe holders, wire basket, 1200 feet 3-4 inch rope, 75 feet 2-inch rope, 12 spittoons, 2 shovels, 18 chairs, 5 beds and bedding, 7 ash cans, 2 clocks, 3 mirrors, steam boiler, 20 badges, 9 set buttons, 8 insignia, table, dust pan, oil tank, 7 smoke protectors, door mat, 6 rugs, water heater, hose washer, 3 mops and all tools for cleaning horses.

TRUCK COMPANY No. 1.

TEN MEMBERS. HOUSE ON LAWRENCE STREET.

Badge.	Rank.	Name.	Age	Occupation.	Joined Dept.	Residence
209....	Captain	A. H. Gibson	40	Permanent	Feb., 1884...	Ladder House
210....	Lieutenant	T. Brown	40	Permanent	May, 1890...	Ladder House
211....	Clerk	T. Dwyer	33	Permanent	Sept., 1888..	Ladder House
212...	Ladderman	J. O'Hare.....	30	Driver	Jan., 1893 ..	Ladder House
213....	Ladderman	J. F. McGuinness...	34	Cloth-finisher ..	Jan., 1893 ..	34 Floyd Street
214....	Ladderman	J. B. Stanton.....	36	Wool-sorter...	Jan , 1893 ..	17 Newhall Street
215....	Ladderman ...	J. D. Finnegan	31	Clerk	Jan., 1893 ..	185 Lawrence Street
216....	Ladderman	J. J. Donohoe.....	38	Teamster.....	Jan., 1893 ..	74 Agawam Street
218....	Ladderman	Wm Gilmore.....	38	Clerk	Jan., 1893 ..	49 Hudson Street
217....	Ladderman	Wm. Heelon.....	34	Livery Stable..	March, 1896	19 So. Whipple Street

SCHEDULE OF PROPERTY

Belonging to the City, in care of Truck Company, No. 1.

Hook and Ladder truck, Bangor ladder 65 feet long, one 37 eet, one 25 feet; 4 roof ladders, one 25 feet, one 18 feet, one 12 feet and one 15 feet extension, door opener, wrench, 2 axes, 4 forks, 2 buckets, 3 lanterns, 4 shovels, 4 bars, 3 horses, 3 harnesses, 3 blankets, 100 feet 3-8 inch rope, 18 chairs, 3 brooms, 2 wire baskets, 2 stable cans, 5 beds and bedding, 22 badges, 10 set buttons, 8 insignia, three-horse pole, 2 pails, whip, 3 mirrors, 2 clocks, 2 dusters, 3 hooks, 6 rugs, 6 smoke protectors, 4 brushes, jack-screw, 12 spittoons, table and all tools for cleaning horses.

TRUCK COMPANY No. 2. WITH CHEMICAL ENGINE ATTACHED.

THIRTEEN MEMBERS. HOUSE ON WESTFORD STREET.

Badge	Rank.	Name.	Age	Occupation.	Joined Dep't.	Residence
221....	Captain	D. W. Hilliard.. ..	44	Permanent	Aug., 1872 ..	Truck House
220....	Clerk	G. W. Alcott.....	43	Driver	Oct., 1877 ..	Truck House
130. ..	Driver	G A. Dickey.....	47	Driv. Chemical	Nov. 1888 ..	Truck House
132....	Ladderman	H. S. Gardner	44	Permanent	May, 1874 ..	Truck House
131....	Ladderman	E. E. Smith.....	42	Permanent	Jan , 1890 ..	Truck House
123....	Lieutenant	C. A. Thompson	52	Carpenter	May, 1880 ..	21 Kimball Avenue
125....	Ladderman	G. E. Maynard	40	Carpenter	Oct., 1888 ..	26 East Pine Street
129....	Ladderman .. .	L. A. Miller.....	32	Box-maker	Nov., 1890..	17 Lane Street
127....	Ladderman	D. D. Libby.....	34	Carpenter	June, 1892 ..	Truck House
128....	Ladderman	C. Stackpole	39	Clerk	Jan., 1893 ..	425 School Street
126....	Ladderman	S. A. Pickering	30	Carpenter	Nov., 1890 .	19 Walker Street
122....	Ladderman	A. I. Laughton.....	41	Tinsmith	Oct., 1891 ..	34 Pine Street
124....	Ladderman	O. A. Foster	39	Machinist	June, 1889 ..	41 D Street

SCHEDULE OF PROPERTY

Belonging to the City, in care of Truck Company, No. 2.

Hook and ladder truck, single tank Chemical Engine, Boston ladder 55 feet long, two 35-foot ladders, 4 roof ladders (two 25 feet long and two 22 feet long), one 16-foot ladder, 4 prop hooks, 6 axes, 2 adjustable hooks for roof ladders, 4 shovels, 7 lanterns, 4 forks, 2 rakes, door opener, 3 bars, 200 feet of rope, 4 pails, 3 whips, 2 carriage jacks, 25 chairs, table, 2 mirrors, 3 clocks, 2 dusters, 2 brushes, 100 feet 3-4 inch and 250 feet 1-inch rubber hose, 4 plaster hooks, hay hook, 9 small hooks, 2 wrenches, 3 chain dogs, 3 ash cans, 3 stable cans, set blocks, 8 smoke protectors, 20 feet of 1 1-2 inch rubber hose, 6 spittoons, 4 horses, 2 sets double harnesses, single harness, 5 blankets, 5 halter bridles, three-horse hitch exercise wagon, 8 beds and bedding, 26 badges, 13 set buttons, 5 insignia, and all tools for cleaning horses.

TRUCK COMPANY No. 3, WITH CHEMICAL ENGINE ATTACHED.

THIRTEEN MEMBERS. HOUSE ON PALMER STREET.

Badge.	Rank.	Name.	Age	Occupation.	Joined Dept.	Residence
110....	Captain.....	F. E. Fuller.....	47	Permanent	May, 1869 ..	Truck House
141....	Lieutenant	H. F. Harris	49	Tinsmith	Nov., 1888..	Truck House
112....	Clerk.....	F. J. Townsend....	42	Driver	May, 1886 ..	Truck House
140....	Ladderman	W. F. Foss.....	32	Permanent	April, 1892..	Truck House
113....	Ladderman	W. F. Simons.....	45	Permanent	Sept., 1872..	Truck House
111....	Ladderman	T. F. Welch.....	39	Permanent	Nov., 1887..	Truck House
142....	Driver	H. A. Merrill	34	Driv. Chemical	June, 1884 ..	Truck House
143....	Ladderman	W. B. Ryan.....	36	Permanent	July, 1892 ..	Truck House
116....	Ladderman	W. P. Maker.....	32	Machinist	Sept., 1888..	L. M. S. Corp.
117....	Ladderman	D. Leary	32	Steam Fitter...	Sept, 1892..	459 Broadway
118....	Ladderman	H. C. Wilkins.....	38	Clerk	Jan., 1890 ..	13 Wachusett Street
114....	Ladderman	E Kirwin...	47	Piper	May, 1871 ..	10 Cady Street
115....	Ladderman	E. H. Dearth	42	Permanent	Jan., 1893 ..	Truck House

SCHEDULE OF PROPERTY

Belonging to the City, in care of Truck Company, No. 3.

Aerial Truck, built by Fire Extinguisher Company of Chicago; two-horse and three-horse hitches, single tank chemical engine, 5 horses, extension ladder 85 feet, one 55 feet, two 16 feet, one 35 feet, one 30 feet, two 20 feet, one 14 feet, one 24 feet, one 21 feet, one 19 feet, and three 12-foot ladders, door opener, bar, 4 iron stakes, sledge, three 100-foot ropes, 2 forks, 2 shovels, 4 hay forks, 6 bale hooks, hammer, wire cutter, 4 buckets, 8 lanterns, 7 axes, 2 monkey wrenches, carriage jack, jack screw, 250 feet 1-inch rubber hose, 50 feet 1 1 2 inch cotton hose, 2 spanners, 2 1-2 kegs of soda, carboy of vitriol, 5 blankets, set of three-horse hitch and set of double harnesses, pair lead bars, 2 tables, 28 chairs, 3 clocks, 9 beds and bedding, 6 spittoons, 6 pails, 6 mops, water cooler, 10 rugs, 2 mirrors, 30 feet 3-4 inch hose, 2 dusters, 3 brushes, 6 smoke protectors, 28 badges, 13 set buttons, 8 insignia, cellar pipe, and all tools for cleaning horses.

TRUCK COMPANY No. 4.

TEN MEMBERS. HOUSE ON FOURTH STREET.

Badge.	Rank.	Name.	Age	Occupation.	Joined Dep't.	Residence
102....	Captain.....	H. B. Downs	63	Permanent	July, 1863 ..	Truck House
101....	Lieutenant	Wm. Marsden	42	Permanent	Feb., 1882 ..	Truck House
100....	Clerk.....	W. L. Peabody.....	48	Permanent	Nov., 1874..	Truck House
105....	Ladderman....	R. W. Stickney.....	35	Janitor.....	May, 1889...	359 Hampshire Street
104....	Ladderman....	E. Lepiene.....	43	Roll Coverer...	Nov., 1894..	22 Seventh Street
106....	Ladderman....	N. Bishop.....	58	Lighter.....	July, 1855...	May Street
103....	Ladderman....	T. McCormick.....	42	Lineman	May, 1886...	172 Market Street
109....	Ladderman...	T. Conway	29	Lineman	July, 1893...	Prescott Street
107....	Ladderman....	J. W. Adams.....	46	Carpenter	Aug, 1874..	161 Central Street
108....	Ladderman....	W. N. Flagg.....	50	Carpenter	Feb., 1884..	235 Appleton Street

SCHEDULE OF PROPERTY

Belonging to the City, in care of Truck Company, No. 4.

Hook and ladder truck, 5 extension ladders (55, 35, 25, 20, and 10 feet respectively), 2 roof ladders (18 and 20 feet respectively), 1 single ladder 20 feet long, 4 props, 6 hooks, door opener, jimmie, 4 axes, 4 lanterns, 4 shovels, 3 horses, 3 harnesses, 3 blankets, 10 chairs, broom, 200 feet rope, 2 stable cans, 4 hay hooks, three-horse hitch, pair lead bars, 3 smoke protectors, 3 beds and bedding, 22 badges, 10 set buttons, 8 insignia, and all tools for cleaning horses.

PROTECTIVE COMPANY No. 1.

FIVE MEMBERS. HOUSE ON WARREN STREET.

Badge.	Rank.	Name.	Age	Occupation.	Joined Dept.	Residence
80....	Captain.....	J. L. Flagg.....	61	Permanent	Feb., 1875...	Protective House
82....	Lieutenant	W. H. Halstead	52	Permanent	May, 1864...	Protective House
84....	....	D. W. Russell.....	43	Permanent	Jan., 1885...	Protective House
81....	.....	J. W. Halstead.....	48	Permanent	Jan., 1872...	Protective House
8....	Clerk.....	J. F. McKissock....	44	Driver	July. 1889...	Protective House

SCHEDULE OF PROPERTY

Belonging to the City, in care of Protective Company, No. 1.

One wagon, traverse runner sleigh, extra pole, two extra wheels, 3 horses, 3 harnesses, 4 blankets, 2 Johnson pumps, 6 extinguishers, Siamese connections, 100 pounds soda, 40 pounds of vitriol, 24 soda cans, 216 vitriol bottles, 16 brooms, 7 shovels, 4 squilgees, 3 iron pails, 5 large sponges, 2 axes, pick-axe, 2 bars, 2 hammers, 36 spikes, 2 augurs, lathe, rake, 2 monkey-wrenches, 12 lanterns, two 10 foot folding ladders, Spencer canvass chute and Dixon air gun, 2 dust pans, 60 gallon oil tank, 2 oil cans, 5 caps and 5 regulation badges, 8 insignia, 6 beds and bedding, 24 chairs, 3 mirrors, 2 clocks, table, 2 bureaus, carpet, water cooler, boiler, two 10-feet length 3 1-2 inch hose, 50 feet 3-4 inch rubber hose, 50 feet 5-8 inch rope, 104 rubber covers, 4 ash cans, 2 stable cans, 4 mops, 3 chamois skins, 3 stable pails, 2 carriage jacks, 2 stable brooms, 2 dusters, 2 pairs of steps, 2 sets of blocks, 5 spittoons, 2 cells Bradbury-Stone Storage Battery for headlights, three-horse pole, 2 jimmies, acid pump, 8 smoke protectors, canvass blanket, rubber gloves, and all tools for cleaning horses.

Location of Signal Boxes.

4—Dutton Street, opposite Parker and Cheney's.
5—Corner of Cushing and Fletcher Streets.
6—Corner of Mt. Vernon Street and Broadway.
7—Corner of Market and Dutton Streets.
8—Corner of Westford and School Streets.
9—Corner of Common and Salem Streets.
12—Market Street, Police Station.
13—Corner of Prescott and Merrimack Streets.
14—Corner of Fayette and Andover Streets.
15—Bleachery Street, on Bleachery Stable.
16—Hosford Square.
17—Corner of Middlesex and Walker Street.
18—Junction of Lincoln and Hale Streets.
19—Corner of Gorham and Union Streets.
21—Corner of Kirk and Merrimack Streets.
23—Corner of Coburn Street and Lakeview Avenue.
24—Corner of Middlesex and South Streets.
25—Merrimack Street, near Tremont House.
26—Corner of Fletcher and Pawtucket Streets.
27—Corner of Riverside Street and Mammoth Road.
28—Corner of Hall and Aiken Streets.
29—Corner of Tenth and Myrtle Streets.
31—Corner of High and East Merrimack Streets.
32—Corner of Bridge and Tenth Streets.

33—Corner of Walker Street and Broadway.
34—Lincoln Street, on Tannery.
35—Corner of Charles and Lawrence Street.
36—City Farm, on pole.
37—Corner of Whipple and Kinsman street.
38—Fair Grounds, on buildings.
39—Corner of Fletcher Street and Broadway.
41—Corner of Wyman and Nesmith Streets.
42—Middlesex Street, Engine House.
43—Edson School House, Highland Street.
45—Engine House, Branch Street.
46—Corner of First and Bridge Streets.
47—Andover Street, Near B. F. Butler's driveway.
48—Corner of Dover and Grove Streets.
49—Corner of Nesmith and Chestnut Streets.
51—Junction of Thorndike and Gorham Streets.
52—Corner of Moody and Austin Streets.
53—Central Street, near Boston and Maine Depot.
54—School Street, near Gas Works.
55—Kitson Machine Shop (Private).
56—Middle Street, Engine House.
57—Warren Street, opposite George Street.
61—Lawrence Street, above Stott't Mills.
62—Corner of Bowers and School Streets.
63—Corner of Hale and Howard Streets.
64—Corner of Third and Myrtle Streets.
65—Lakeview Avenue, near Aiken Street Bridge.
67—Hildreth Street, opposite Lilley Avenue.
68—Corner of Sixth and Fremont Streets.
71—Middlesex Village, on Pole.
72—Middlesex Street, opposite Huntoon's Stable.
73—Mammoth Road, near City Line.
74—Varnum Avenue.
75—New Moody Street, corner of Riverside Street.

81—Corner of Pine and Wilder Streets.
82—Corner of Chelmsford and Grand Streets.
83—Corner of Powell and Smith Streets.
84—Corner of Westford and Gates Streets.
85—Corner of Pine and Marlborough Streets.
92—Bridge Street, opposite Whitney's.
93—Corner Thirteenth and May Streets.
113—Corner Paige and John Streets.
114—Corner High and Porter Streets.
115—Corner Moore and South Whipple Streets.
121—Western Avenue, near Railroad Crossing.
125—Market Street, opposite Lewis Street.
126—Corner of Mt. Washington and Varney Streets.
127—Corner of Mammoth Road and Woodward Avenue.
128—Counting Room Tremont and Suffolk Mills (Private).
129—Corner of Beacon and Methuen Streets.
131—Corner of Howe and East Merrimack Streets.
132—Pumping Station.
134—Corner of Main and Plain Streets.
135—Perry Street, Electric Light Station.
136—Corner of Stevens and Parker Streets.
138—Corner of Lundberg and Gorham Streets.
139—Corner of Cross and Adams Street.
141—Corner of Fairmount and Talbot Streets.
143—Hood's Laboratory (Private).
145—Corner of Middlesex and School Streets.
149—Corner of Alder and Bartlett Streets.
152—Corner of Merrimack and Spaulding Streets.
154—Rock Street, Corner of Willie Street.
161—Faulkner's Mill (Private).
162—Corner of Wilder and Pawtucket Streets.
163—Tanner Street, near Scannell and Wholey's.
165—Corner of Lakeview Avenue and Fred Street.
171—Corner of Middlesex and Pawtucket Streets.

172—Corner of Appleton and Favor Streets.
181—Corner of Stevens and Westford Streets.
182—Corner of Chelmsford and Westford Streets.
183—Corner of Mason and South Loring Streets.
184—Corner of Stevens and Marginal Streets.
185—Corner of Pine and Westford Streets.
214—Corner of Nesmith and Rogers Streets.
215—Meadowcroft Street, near Bolt Street.
225—Corner of Little and Lewis Streets.
234—Consumers' Brewing Company (Private).
235—White's Tannery (Private).
236—B and Puffer Streets.
238—Corner of Gorham and Carlisle Streets.
241—Rogers Street.
249—Corner of East Merrimack and Stackpole Streets.
261—Bunting Company (Private).
271—Lowell and Suburban Street Railway.
283—Corner Chemlsford and Forrest Streets.
325—Fenwick Street, near Suffolk Street.
371—Corner of Middlesex and Wood Streets.

FIRE-ALARM TELEGRAPH

Location—Engine House, Palmer Street

HENRY C. FERNALD, Operator

Ten-circuit Automatic Repeater with Storage Battery of	400 cups
Miles of Wire	100
Signal Boxes	112
Engineers' Gongs	8
Engineers' House Gongs	15
Indicators	17
Bell Strikers	10

Gong and Indicator Combined in Police Station.
Gong in Pumping Station.
Gong in Merrimack Square.
Gong at Towers' Corner.
Gong at Northern Depot.

The strikers are located as follows : Palmer Street Engine House, Varnum School House, High Street Church, Court House, No. 1 Engine House, Franklin School House, Pawtucketville Engine House, No. 6 Engine House, Highland School House, Lawrence Street Engine House.

TELEPHONE CIRCUIT.

Complete Stations	19
Tap Bells (extra)	22
Miles of Wire	40

Storage Battery of 100 cups.

SCHEDULE OF PROPERTY

Belonging to the City, in care of Fire Alarm Operator.

One eleven circuit switch board for storage battery, one ten-circuit non-interfering automatic repeater, cut out testing switch-board, line testing machine, 12 galvanometers, 100 public and 8 private signal boxes, 16 electrical arrangements for opening stall doors, 100 miles of wire, 500 cups of storage battery, 18 call and 45 tap bells, 21 extension bells, 40 miles of wires, 23 electric light current protectors, 75 glass insulators, 2 saws, 2 hammers, 2 screw drivers, 2 straps with vises, pliers, tongs. set bits and bit stock, broad axe, pair of climbers, deadman, ladder, draw shave, fire-alarm box keys, outside shells, doors to boxes, pocket relay, lanterns, desk, table, chairs, duster, chamois skin, 36 electric gas burners, 38 cups of battery for lighting gas burners, horse, harness, blanket, sleigh, 3 wagons, etc.

SCHEDULE OF PROPERTY

Belonging to the City, in the Palmer Street Eugine House.

Two horses, harness, wagons, sleighs, etc., for the Chief's use one-horse hose carriage, cotton hose, 2 two-way chucks, 2 lathes, grindstone, planer, 2 stable cans, tools, poles, shafts, ladders, feed, salt, boilers, and siphon.

In Chief's office—Two desks, set of drawers, table, 16 chairs, 1 silver and two brass trumpets, mirror, cloth, badges, 3 set dies for department buttons, set of dies for department badge, large clock (Lawrence patent), small stop clock, chamois skins, dusters, soap, brooms, brushes, lanterns, medicines, sponges, matches, axle grease, etc.

The value of the foregoing property is $154,000.00.

General Running Orders.

The companies will respond to alarms of fire given from boxes as indicated on the running card.

The Chief, First Assistant, and Protective Company will answer alarms from all boxes.

Members of companies who do not respond to first alarms will report to their respective houses and await orders. Should a second or third alarm be not received within thirty minutes, the officer in command will have the roll called and dismiss his men. If the recall is sounded before the stipulated time, the officer will dismiss his men. After a second alarm has been given, the members of companies not responding to it will remain on duty at their respective houses until the recall is sounded. If there are no companies remaining in quarters that respond to alarms given from other boxes after the first alarm has been given and before the recall is struck, one engine, one truck, chemical, and two hose companies remaining in quarters nearest to the box giving the alarm will respond immediately. This article applies to all alarms of fire except in case of telephone or still alarms, the engine will not respond. After a second alarm is given, all companies remaining in quarters will respond immediately before the recall is sounded.

In cases where two alarms are given from the different boxes, the second having struck before the recall from the first box, the recall from the first box will be two blows, from the second box one blow.

The all-out or recall signal will be given by striking two blows, with an interval of ten seconds between the blows.

Second alarms will be given by striking two blows, followed by one round of the box.

Third or general alarms will be given by striking three blows, followed immediately by one round of the box, when all the companies will respond.

Second or third alarms will be given by special orders of the Chief or Acting Chief.

Two strokes repeated at 1-4 before 8 A. M. and 1-4 past 1 P. M. in the summer and 1-4 before 1 P. M. in the winter denotes no session of the Primary and Kindergarten Schools. The same alarm repeated in thirty seconds denotes no session of all the schools. The same alarm at 6 05 P. M. denotes no session of the Evening Schools.

Instructions to Key Holders.

Alarms are to be given from boxes nearest the location of the fire.

Upon the discovery or positive information of a fire, you will unlock the box, pull down the slide or hook, once only, and let go. If you hear no sound from the bell, pull again. If you fail again go to the nearest box and do the same. Also be particular to remain at the box until the arrival of the Engineer, who will release the key.

Each box contains a small bell, which if heard indicates that the alarm has been given from another box. In such a case do not pull the box until the alarm has been completed.

Never signal for a fire seen at a distance. Never touch the hook except to give an alarm of fire. Give an alarm for no cause other than an actual fire.

Never let the key out of your possession except called for by the Chief Engineer. If you change your place of residence or business where the key is kept, return it to the Chief Engineer.

Keys to the boxes are in the hands of responsible parties in the vicinity of the boxes, also in the hands of the Police.

Citizens are requested to inform themselves where the keys of the signal boxes are kept. A large number of boxes have been furnished with a key in an iron box with a glass front, which in a few cases had to be taken out on account of boys breaking the glass.

Companies Responding to Telephone Alarms.

District No 1. — North of Hale's Brook, west of B. & L. R. R., to and including Westford Street to City line. Hose 2 and 9, Truck 2 and Chemical C.

District No 2. — North of Westford Street, west of B. &. L. R. R., to Pawtucket Canal, to School Street, to and including Sargent and Wannalancit Streets, to Pawtucket Street, except Pawtucket Street and Middlesex Village. Hose 2 and 8, Truck 2 and Chemical C.

District No. 3. — Pawtucket Street from Wannalancit Street, Middlesex Village to City line. Hose 2 and 5, Truck 2 and Chemical C.

District No. 4. — Wannalancit Street to Sargent, to Varney, to Fletcher, to Merrimack River. Hose 5 and 6, Truck 2 and Chemical C.

District No. 5. — North of Pawtucket Canal, Dutton Street, to Broadway, to Suffolk, to Merrimack River, to but not including Fletcher, Varney and School Streets to Pawtucket Canal. Hose 6 and 8, Truck 3 and Chemical B.

District No 6. — Dutton Street from Merrimack River, to but not including Broadway and Suffolk Street, to Merrimack River. Hose 3 and 8, Truck 3 and Chemical B.

District No 7. — Centralville. Hose 3 and 10, Truck 4 and Chemical B.

District No. 8 — East of Dutton Street, from Merrimack River to Pawtucket Canal, to Concord River, to Merrimack River. Hose 3 and 10, Truck 3 and Chemical B.

District No. 9. — Belvidere, north of Andover Street. Hose 3 and 4, Truck 4 and Chemical B.

District No. 10. — South of but not including Andover Street. Hose 4 and 7, Truck 1 and Chemical B.

District No. 11 — South of Pawtucket Canal, Concord River to Rogers, Wamesit, Elm and South Streets to Pawtucket Canal. Hose 3 and 7, Truck 3 and Chemical B.

District No. 12. — West of but not including South Street, from Pawtucket Canal to Highland Street, to B. & L. R. R., to Pawtucket Canal. Hose 2 and 7, Truck 2 and Chemical C.

District No. 13. — East of B. & L. R. R., Robinson to Congress, to Gorham, to Central, to Crosby, to Newhall, to Watson, to Concord River, to but not including Rogers, Wamesit, Elm and Highlands Streets. Hose 7 and 11, Truck 1 and Chemical C.

District No. 14 — East of B. & L. R. R , south of but not including Robinson, Congress, Central, Crosby, Newhall and Watson Streets to Concord River, to Lawrence Street to City line. Hose 1 and 11, Truck 1 and Chemical C.

District No. 15. — West of B. & L. R. R., south of Hale's Brook to City line. Hose 1 and 9, Truck 2 and Chemical C.

The Protective will respond to all alarms.

ANNUAL REPORT

OF THE

SUPERINTENDENT OF STREET LIGHTS

OF THE

City of Lowell,

FOR THE YEAR 1896.

LOWELL:
PRESS OF THE UNION PRINTING CO.
1897.

CITY OF LOWELL.

IN BOARD OF ALDERMEN, February, 1, 1897.

Received and ordered on file.

GIRARD P. DADMAN, City Clerk.

REPORT.

LOWELL, January 1, 1897.

To the Mayor and Board of Aldermen:

GENTLEMEN:—Herein is submitted the Annual Report of the Superintendent of Street Lights, for the year ending December 31, 1896. The working force of the department under the direction of the Superintendent (Chief of the Fire Department), consists of thirteen men, one of whom acts as Foreman. They have, in addition to their regular duties of lighting and cleaning the gas lamps, set up and fitted 44 gas and 25 gasoline posts, have removed 2 gas and 3 gasoline posts on account of the electric lights. They have replaced 6 gas and 42 gasoline posts that have been broken, replaced 6 lantern frames, removed 13 gas posts, and plugged the mains, replaced 9 gasoline posts with gas posts, set 720 lights of glass and 42 globes.

There are at present 850 gas lamps; in addition there are 39 lights owned by different corporations, the City paying for the gas consumed. These lights are lighted and put out according to the time designated by a card issued by the

Superintendent monthly. These lights average about seven hours a night, and burn 4, 6, 12, and 18 feet per hour, according to location. There have been 44 new gas lights added and 22 discontinued during the past year on account of electric lights.

The locations of the gas lights added the past year are as follows: Fay Street 5, Holyrood Avenue and Butman Road 4 each, Mt. Hope and Sidney Streets 3 each, Wentworth Avenue and Orleans Street 2 each, South Loring, Concord, Roberts, Pleasant, Avon, Plymouth, Dalton, Hovey, Swift, Fred, Princeton, Waterford, Ellsworth, Claire, Wiggin, Warwick and Fernald Streets, Parkview and Fort Hill Avenues and Cumberland Road, 1 each.

The Globe Gas Light Company of Boston agrees by contract to furnish all the lanterns and glass and keep in good order with a light equal to a five feet burner, at seven cents per light per night, to have no less than twenty-five nights per month and to burn until one o'clock. These lights as a rule are located on streets where there are no gas mains, and are replaced with gas as soon as the gas mains are laid.

There are 548 gasoline lights at present, 25 new ones having been added and 16 replaced by gas and electric lights the past year.

The locations of the gasoline lights added the past year are as follows: Richardson Street 4, Midland and Seventeenth Streets 3 each, Blodgett

and Christian Streets, Coburn Avenue and Meadow Road, 2 each, Sycamore, Parker, "D," Decatur, Highland, Burlington and Winter Street, 1 each.

There were 14 electric lights ordered and located as follows: Princeton Street, Livingston Avenue, Corner Chelmsford and Stevens Street, Poor Farm, Green Street, Wentworth Avenue, Corner East Merrimack and Ash Streets, Corner Grove and Walker Streets, Fremont Street, Beacon and Tenth Street, Corner of Moody and Riverside Streets, and 3 on the new Moody Street Bridge which are not yet used. In addition there were 8 lights burning on Fort Hill Park during the months of July, August and September. There are at present 437 lights for which the City pays 35 cents per light per night every night in the year with a rebate of three and one-half cents per hour for every light reported not burning by the Police.

The Contract with the Lowell Electric Light Corporation expired August 1893 and a new contract was made for five years.

The following statement will show the Receipts and Expenditures for the year 1896:

RECEIPTS.

Balance undrawn Jan. 1, 1896	$ 1,458 49	
Appropriation	70,000 00	
Loan	5,000 00	
Received from other sources	524 55	
Transfers	9,492 16	
		$86,475 20

EXPENDITURES.

Pay Roll		$ 8,554 00
Lowell Electric Light Corporation...		
Streets	$55,522 75	
Huntington Hall	334 80	
City Hall	695 10	
Memorial Hall	172 29	
Precinct Booths	300 00	
Moving poles	60 00	
		$57,084 94
Lowell Gas Light Company		
Streets	$ 5,842 90	
Huntington and Jackson Halls..	347 90	
City Hall	243 20	
Old City Hall	5 40	
Ward Rooms	55 30	
Department Headquarters	3 30	
Memorial Hall	17 70	
		6,515 70
Globe Gas Light Company		12,479 01
Hay, grain, glass, paint, waste, lanterns, posts. frames, water, etc.		1,841 55
Total expenditure for the year 1896.		$86,475 20

Schedule of property belonging to the City, under the charge of the Superintendent of Street Lights Dec. 31, 1896, 1200 lamp posts, 543 wooden posts and frames used for gasoline purposes, 850 lantern frames, horse, 2 wagons, 2 robes, 3 blankets, 2 sleighs, 2 harnesses, collar and hames, 882 lanterns, 17 jumbos, 14 ladders, 44 globes, 500 feet 3-4 inch pipe, air pump, saw, 2 oil cans, 60-gallon oil tank, match box, 4 iron posts, stove, boiler connection, Colcord desk, spittoon, coal hod, 9 shovels,

5 picks, 4 bars, 2 tamps, 3 monkey wrenches, 8 boxes of glass, 40 feet of hose, 1-8, 1-2 and 3-4 inch dies, 3 pipe cutters and necessary pipe fittings, 2 pairs 3-4 inch pipe tongs, diamond glass cutter, 1-2 ton coal, 2 lanterns, spirit level, 18 torches, bench, vise, 10 gallons of alcohol, 2 forks, 2 dozen pipe fittings, axe, hatchet, 1-4 ton of hay, 42 gallons of paint, 5 chairs, looking-glass, draw shave, etc.

The value of the above property is $25,000.00.

Respectfully submitted,

EDWARD S. HOSMER,

SUPERINTENDENT.

ANNUAL REPORT

OF THE

BOARD OF POLICE,

FOR THE

YEAR ENDING JUNE, 1897.

LOWELL, MASS.:
COURIER-CITIZEN JOB PRINT.
1897.

ANNUAL REPORT.

OFFICE OF THE BOARD OF POLICE,
LOWELL, MASS., June 1, 1897.

Hon. Wm. F. Courtney, Mayor City of Lowell:

DEAR SIR:—The Board of Police of the City of Lowell has the honor to submit herewith the annual report of its administration for the year ending May 31, 1897.

The conduct and discipline of the police force during the year have on the whole been excellent. The complaints against officers have been few; the causes of complaint, except in two cases, were not of a serious nature. Four complaints against officers were, after investigation, not only dismissed, but the Board felt it incumbent to commend the officers for their conduct. Four complaints against officers were found to merit disciplinary action; two were fined; one was reduced to the ranks; and one was dismissed the service. Three officers were promoted from the permanent reserve force to the regular police force; and three were appointed to the probationary reserve from the civil service lists. While the Board believes that additional officers could be used with advantage to the city, the depressed condition of business and

the necessity for economy in every direction make any additions to the force at present inexpedient.

Six complaints against holders of minor licenses were investigated during the year and were disposed of as the conditions seemed to warrant.

The conduct of the liquor traffic has in the past been a source of anxiety and trouble to the police department; but during the incumbency of the Police Board the laws governing the traffic have been strictly and impartially enforced, and not a single violation of the law by a licensed dealer has occurred. The violations of the liquor law by unlicensed dealers have shown a notable decrease, the number of arrests for such in 1895-6 being eighty-three, and those during 1896-7 only forty. It is worthy of note that the whole number of arrests has dropped from 5,879 in 1895-6 to 4,377 in 1896-7, a decrease of 1,502; and the arrests for drunkenness have dropped from 4,140 to 3,087, a decrease in the same period of 1,053.

The following tables, showing the total number of arrests and the arrests for drunkenness since 1888, are useful data:

	TOTAL NUMBER.	DRUNKS.
1888.	4,150.	3,041.
1889.	4,557.	3,307.
1890.	3,846.	2,638.
1891.	5,357.	4,035.
1892.	6,153.	4,609.
1893.	3,635.	4,103.
1894.	4,831.	3,364.
1895-6.	5,879.	4,140.
1896-7.	4,377.	3,087.

The year 1890 was one when the citizens of Lowell by vote decided that no licenses for the sale of intoxicating liquors should be granted. The population of Lowell in 1890 was 77.000; the population of the city to-day is computed at 90,000 and over, an increase in seven years of about 16.8 per cent. If we add this 16.8 per cent. to the number of arrests for drunkenness in 1890 (2,638), we find that on our present basis of population the arrests of that year would be 3,181, or nearly one hundred more than in the present year.

In this connection it should be understood that the extension of the electric street railroad system has made Lowell the centre of a number of communities, which, while they add to the wealth and trade of this city, also contribute their quota to the arrests by the police. This expansion of Lowell's sphere of influence was in its experimental stages only in 1890. Of the 4,377 arrests made in 1896-7, some eight hundred and ninety-five, or twenty per cent., were non-residents of Lowell; while in 1890, out of 3,846 arrests only six hundred and thirty-seven were non-residents, or about sixteen per cent. of the whole: a difference of four per cent. against the no-license year. If this four per cent. difference is added to the figures already reached by the difference in population (3,181), it will carry the arrests for 1890 up to 3,308, an excess over the figures of 1896-7 of two hundred and twenty-five. These figures will interest those who are of opinion that the morals and morale of the community are better subserved

under a no-license system than under a well regulated license law; and they may be interesting to those who have faith in a contrary theory. How much the element of hard times entered into the question is another matter for consideration.

The changes made during the year in the police signal system of the department have given the city a service that is equalled by few and excelled by none on this continent. When the time comes when all the wires of the system are underground it will be nearly as perfect as can be desired; but of course that perfect day, like all good things, lies in the future. The only addition, or change, contemplated in the system at present is from the gravity to the storage battery, a change that is comparatively cheap, and which in operation means a saving of about thirty-three per cent.

The following tables of statistics represent the work of the sub-divisions of the department and are self-explanatory.

JOHN A. FAULKNER.
HARRY R. RICE.
PETER J. BRADY.
Board of Police

GENERAL DUTY ROSTER OF THE FORCE.

SUPERINTENDENT OF POLICE.

GEORGE R. DAVIS.

DEPUTY SUPERINTENDENT.

JAMES A. MCQUADE.

CAPTAIN.

WILLIAM B. MOFFATT.

LIEUTENANTS.

JAMES BROSNAN. WILLIAM R. KEW. JAMES E. WEBSTER.

SERGEANTS.

HUGH DOWNEY. GEORGE B. PALMER.

INSPECTORS—Criminal.

THOMAS E. ALLEN. CHARLES LAFLAMME.

INSPECTORS—Liquor.

DAVID J. DONALDSON. FRANK GOODWIN.

INSPECTOR—Claims.

MICHAEL E. MCDONALD.

WARRANT AND COURT OFFICERS.

WILLIAM G. BUMPS. HENRY FARRINGTON. JACOB G. FAVOR.

JANITOR.

ISAAC L. LIBBY.

TURNKEYS.

ALFRED M. HOLMAN. JAMES MCLAUGHLIN.

DAY PATROL—First Platoon.

Buchanan, John.
Cawley, Peter.
Clement, Horace W.
Crowley, John B.
Crowley, John J.
Dennett, John S.
Ganley, John J.
Gregg, Charles.
Grinnell, Enoch N.
Holland, James E.
Lane, Daniel W.
Lennon, Michael J.
Libby, Albert E.
MacKenzie, John R.
O'Connell, Michael.
Page, Alonzo J.
Sanborn, Thomas J.
Tilton, John W.
Walsh, John A.
Whitney, Frank H.

NIGHT PATROL—First Platoon.

Atkinson, Thomas R.
Blood, Josiah S.
Boyle, James.
Breen, Dennis J.
Cogger, Daniel W.
Coleman, Thomas F.
Corcoran, Peter T.
Curran, Peter.
Dow, James E.
Duncan, Alexander.
Fitzpatrick, Patrick.
Fox, Edward.
Fox, Frank.
Fox, John W.
Grady, William H.
Hickson, John.
Hogan, David H.
Howard, Cornelius.
Ingalls, Lindsey E.
Kane, Bartholomew.
Maguire, Hugh.
Maher, Martin A.
Markham, James.
Marshall, George W.
McCloughry, Thomas.
McIntee, Cormack.
McKay, John H.
McNabb, James.
Mulry, John J.
O'Brien, William H.
O'Connell, John.
Provencher, Napoleon.
Quinn, Henry F.
Rielly, James.
Ryan, Bartholomew.
Swan, Edward T.
Tilton, Herman N.
Whittaker, John T.

NIGHT PATROL—Second Platoon.

Brady, Patrick H.
Breault, Eloi N.
Creahin, John.
Dunlavy, James F.
Fitzgerald, Thomas H.
Hill, Edward E.
Hurley, James F.
Kiernan, Michael.
Leighton, John L.
Molony, Thomas A.

Gardner, Willis L.
Hessian, Stephen F.
Hill, Charles S.
Moore, Francis E.
Murphy, Anthony.
Welch, Redmond, Jr.
Whitworth, James H.

RESERVE FORCE.

Bigelow, Samuel J.
Burnett, William C.
Dwyer, Philip.
Leighton, Euric L.
Marshall, Frank K.
McCann, Matthew J.
Perkins, Everett E.
Sparks, John F.
Welch, John N.
Young, George H.

ELECTRICIAN.

Michael J. Burns.

NIGHT OPERATOR.

James H. Howard.

DRIVERS OF PATROL WAGON.

Frederick L. Davis. James W. Kilburn.

HOSTLER.

Albert Crowell.

POLICE MATRON.

Margaret Wallace.

CHARWOMAN.

Lizzie Corcoran.

RECORD OF PERSONS ARRESTED AND OFFENCES COMMITTED DURING THE YEAR 1896 7.

CLASS.	OFFENCE.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April.	May.	TOTAL.
AGAINST PUBLIC ORDER, ETC.	Abortion,		1											1
	Adultery,	4	2		2	4		3	4	4	3	2	7	35
	Bastardy,	3	1		4	2	1			1	1	1	2	16
	Bestiality,													
	Breach of peace,													
	Carrying weapons,				1	1		1	1					4
	City ordinance (violating),	11	7	1	4	2	4	9	2	3		4	2	49
	Common brawler,		1			1								2
	Common night walker,													
	Contempt of court,													
	Counterfeit money,													
	Cruelty to animals,	2	2	1		1	3	2			2	2		15
	Disorderly housekeeping,									1			1	2
	Disturbing the peace,	2	4	1		8	18						6	39
	Dog, keeping unlicensed,		1		1	1			2				2	7
	Drunkenness,	285	273	263	266	263	267	227	223	234	239	227	307	3073
	Escape from prison,	5		1	1		1		1			2	2	13
	Forgery,		1		1							1		3
	Fornication,	2	2	4	2	8	4	2	6	8	3		10	51
	House of ill fame keeping,													
	Idle and disorderly,		1											1
	Incest,													
	Indecent exposure,	1					1					2		4
	Lewd cohabitation,	3					2	2	2	2	2	1		14
	Lewdness,		2											2
	Liquor laws, violating,	10	4	7	4		4	1	3		1		6	40
	Neglect of family,	2	3	8	9	9	3	3	3	5	2	2	7	56
	Obscenity,													
	Peddling, unlicensed,									1			2	3
	Perjury,													
	Polygamy,	1						1				2		4
	Profanity,	1	4			1						1		7
	Obstructing an officer,	1		1			2	1					1	6
	Rescue,													
	Stubbornness,		2	6	5	4		1	1	3	3			25
	Sodomy,													
	Tramps,													
	Vagabonds,													
	Vagrants,	2	5	6	3	2		3	1			4	5	31
	Walking on railroad,													
	Delirium tremens,	4	5		1		1		1		1		1	14
	Safe keeping,	4		2	4	1								11
	Truants,	2							3	1			2	8
	Suspicious persons,	21	9	13	15	9	13	8	2	8	1	12	8	119
	Capias,	7				1	6		1	5		1		14
	Insanity,	2	1	1	1	1	1	4		1		2	1	15
	Wandering about streets,	3	2				5	2					4	16
	Violation U. S. revenue laws,	3												3
	Violation Sunday laws,	1		2	2			1	10					16
	Neglected children,				2									2

RECORD OF PERSONS ARRESTED AND OFFENCES COMMITTED DURING THE YEAR 1896-7.

	OFFENCE.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April.	May.	Total.
	Violating Food and Health laws,		1	2				1			1		6	10
	Unlicensed Com. Victuallers,			1				1						2
	Gaming,						10			15		4	6	35
	Attempt at illegal voting,								1					1
	Violation Insurance laws,													1
	Violation Pharmacy laws,								1					1
	False answers to stable keeper.									1		1		2
	Unnatural lascivious act,									1			2	3
	Bribery,										3			3
AGAINST THE PERSON.	Assault,	27	29	41	30	27	31	10	4	11	14	12	17	263
	Assault, felonious,	2	2	1								1		6
	Blackmail,													
	Manslaughter,													
	Murder,													
	Murder, attempt,			1										1
	Rape,								1					1
	Rape, attempt,			2										2
	Robbery,													
	Threats,	4		1	1	2	3		4		1	1	1	18
AGAINST THE PROPERTY.	Arson,													
	Breaking and entering,	4	8	8	6	9	11	4	10	6	2	2	6	76
	Common thief,													
	Embezzlement,	1		1	3	3	5		1	3	1	1	3	22
	Evading fare,	1												1
	Fraud,							1						1
	Larceny,	20	28	31	21	34	13	23	22	17	10	16	13	248
	Malicious mischief,			2			1	1	1		1	1		7
	Receiving stolen goods,									1		1		2
	Trespass,		1	9	5	13	2			1		1		32
	Unlawful taking,			3	4		4	2	1					14
	False pretences,	1	1	3	1	1			1			1	3	12
	Concealing mort. prop.,	2				1	1		2					6
	Selling mort. prop.,				1				1					2
	Suspicion of larceny,		1		1	1	4	2	6	2	4		1	22
	Suspicion of B. and E.,							1	3			1		4
	Injury to real estate,						1						1	2
	Defrauding hotel keeper.										1			1

JUNE, 1896–MAY, 1897.

STATISTICAL RECAPITULATION SHOWING THE SEX. NATIONALITY AND EMPLOYMENTS OF THE PERSONS ARRESTED.

DISTRIBUTION OF SEX AND NATIONALITY.

	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April.	May.	Totals.
Men,	325	292	300	295	282	319	226	222	233	223	247	322	3,286
Women,	58	58	60	67	46	41	55	50	52	53	42	73	655
Minors,	45	39	54	38	48	48	25	41	37	18	14	29	436
Colored,			1		1							1	3
Non-residents,	77	78	87	72	93	100	57	50	65	61	72	83	895
United States,	174	177	177	180	179	175	126	136	151	128	150	192	1,945
England,	40	42	33	38	31	41	21	21	40	30	22	43	402
Ireland,	129	95	118	101	93	79	92	77	60	69	83	108	1,104
Scotland,	11	8	10	8	7	5	10	7	15	7	9	11	108
British Provinces,	65	53	58	65	44	74	43	53	43	55	28	42	623
France,	1		2	1			1		2		2		9
Germany and Belgium,		2	3	1	3	1		3	1			1	15
Italy and Austria,			1			9			1		1		12
Russia,		4	1	2	3	3		3		3	4	10	33
Turkish Empire and Greece,	2	4	7	2	7	10	9	12	8	1	1	7	70
Scandinavia,	1	1			3		3			1	1	1	12
Miscellaneous,	5	3	4	2	6	11	1	1			2	9	44
TOTAL,	428	389	414	400	376	408	306	313	322	294	303	424	4,377

DISTRIBUTION OF EMPLOYMENTS.

	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April.	May.	Totals.
Building Trades,	32	44	29	31	29	39	25	28	16	18	30	37	358
Mechanical Trades,	39	35	32	25	40	35	27	15	26	29	17	37	357
Mill and Factory,	134	111	141	137	105	143	95	118	121	107	97	152	1,461
Shops and Stores,	20	19	16	20	12	19	15	19	13	13	18	18	212
Professional,	5	4	5	3		2	3	2	1	5	3	3	36
Agricultural,	11	12	14	17	7	12	11	5	9	9	6	9	122
Clothing and Garb,	17	13	15	11	16	11	10	7	11	8	14	14	147
Agents, etc.,	4	5	15	6	8	8	6	6	11	6	5	16	96
Laborers,	94	90	80	83	89	84	61	60	59	54	72	79	905
Service, Domestic, etc.,	20	23	24	28	26	24	19	19	24	19	21	26	273
R. R. and Transportation,	14	14	19	20	33	16	13	11	17	13	10	20	200
Children,	11	9	17	9	6	9	6	8	5	3	5	10	98
Miscellaneous,	17	10	7	10	5	8	15	15	9	10	2	6	114
TOTAL,	428	389	414	400	376	408	306	313	322	294	303	424	4,377

MINOR LICENSES ISSUED DURING THE YEAR 1896-7.

Amusement permits	61
Amusement licenses	6
Auctioneers' licenses	41
Common victuallers' licenses without liquor	366
Common victuallers' license, with liquor	64
Express and job wagon	194
Hackney coaches	42
Fish wagons	26
Hawkers and pedlars (transient)	21
Intelligence offices	15
Junk collectors	62
Junk dealers	12
Dealers in second-hand goods	14
Pawnbrokers	11
Pool and billiard rooms	27
Private detectives	2
Night lunch wagons	7
Minor drivers	7
Itinerant vendors	2
Innholders — with liquor license	16

LICENSES TO SELL INTOXICATING LIQUORS.

ISSUED FROM JUNE 1, 1896, TO MAY 1, 1897.

1st Class,	Innholders	16	@	$1,500	-	$24,000.00
" "	Common victuallers	64	"	1,300	-	$3,200.00
4th "	Retail dealers	80	"	500	-	40,000.00
" "	Wholesale dealers	3	"	1,500	-	4,500.00
5th "	Brewer	1	"	1,500	-	1,500.00

6th " Druggist - -	56 "	1 -		56.00
Special Class — Clubs -	2 "	50 -		100.00
Registration fees on 222 licenses - - -				222 00

Total number of liquor licenses, 222.

Revenue from liquor licenses - - - - -	$153,578.00
Revenue from minor licenses - - - -	2,507.50
	$156,185.50

REPORT OF THE INSPECTORS OF LICENSES.

	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mch.	April.	May.	Total.
No. of search warrants, . .	22	16	21	12	23	14	11	15	15	8	10	30	197
No. of liquor seizures made,	4	3	7	1		3	1	4	1			4	28
Gallons of spirits seized, . .	3	2	7	¾		2	1	24½	5			2	264¼
Gal's of malt liquors seized,	26	3				7	3½	7					48½
Viola'ns of licenses report'd,													

REPORT OF THE BUREAU OF CRIMINAL INVESTIGATION.

	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March.	April.	May.	Totals.
Value of property lost and stolen,	$670	$630	$702	$1,263	$929	$1,342	$460	$507	$639	$902	$700	$437	$9,181
Value of property recovered, .	422	515	486	913	446	815	238	106	338	771	408	277	5,735
Value of property still missing, .	248	115	216	350	483	527	222	401	301	131	292	160	3,446
Search warrants, ...			2	1	1	2	3	1	1	3		2	16
Cases investigated without arrest, ...	15	5	6	7	7	9	6	5	6	7	10	4	87
Arrests made.	14	8	15	22	12	19	16	15	12	12	14	13	172

In addition to the amounts reported recovered above the sum of $2,000 was recovered from a prisoner arrested on a demand from Providence, R. I.

REPORT OF THE KEEPER OF THE LOCK-UP.

	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April.	May.	Totals.
Money taken from prisoners,	$433.31	$675.69	$423.65	$302.25	$332.22	$626.89	$367.52	$263.85	$325.65	$296.85	$463.91	$611.43	$5,123.22
Defective streets and sidewalks,	47	51	64	71	25	19	20	43	23	43	32	14	452
Defective lamps,	332	407	484	362	511	423	211	99	80	179	214	93	3,391
Obstructions removed from str'ts,					12	6	5				5	8	36
Store doors found unlocked,	54	33	51	76	44	27	57	72	52	62	52	31	611
Lost children restored to parents,	9	11	11	9	11	9	5	5	4	6	9	11	100
Stray teams found and put up,	5	4	6	6	4	4	2	2	3	2	2	2	42
Drunks assisted home,	35	15	16	25	28	22	14	32	29	21	25	13	275
Disturbances quel'd with't arrest,	29	27	26	30	15	22	24	26	25	21	34	25	304

RECORD OF LODGERS.

	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April.	May.	Totals.
Total number,	122	85	53	59	60	52	50	33	10	2	3	27	556
Male,	120	78	53	59	54	51	47	30	9	2	3	27	533
Female,	2	7			6	1	3	3	1				23
Minors, male,	10	3		3		6	1	2				4	29
Minors, female,		3			1				1				5
Resident,					1		1	1					3
Non-resident,	122	85	53	59	59	52	49	32	10	2	3	27	553
American,	59	42	25	19	31	29	31	20	3		2	20	281
Foreign,	63	43	28	40	29	23	19	13	7	2	1	7	275

REPORT OF THE MATRON OF THE POLICE STATION.

Offences for which Women were Arrested.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April.	May.	Total.
Adultery,	2	1			2			2	2	2	1	5	17
Assault,		2	6		4						1		13
Drunkenness,	41	42	48	45	32	30	44	47	45	51	37	60	522
Delirium tremens,		1										2	3
Escape from prison,									1		1		2
Fornication,	1	1	2	1	4	2	2	4	3	2		3	25
Idle and disorderly,		1											1
Insane,	2				1	1	1		1				6
Larceny,	5	2	6	5	4	1	3	4	5	2	2	2	41
Lewdness,	1	1					2	1	1	1	1		8
Safe keeping,			2	1	1	1				1			6
Stubbornness,		2	2		1					2			7
Vagrant,				3								1	5
Violation liquor law,	4	2	4	1		1						1	13
Embezzlement,								1				1	1
Capias,	1				1	1							3
Polygamy,	1										1		2
Abortion,		1											1
Unlawful cohabitation,						1							1
Breaking glass,						1							1
False answers,							1						1
Breaking and entering,												1	1
No. arrested,	58	56	70	56	50	39	53	59	58	61	44	76	680
No. minors,		2	5						4	4	2		18
Money taken from and returned to women,	$10.48	$2.72	$76.85	$6.17	$21.00	$17.11	$24.56	$20.96	$40.43	$5.65	$10.39	$7.45	$243.55

REPORT OF THE POLICE SIGNAL SERVICE SYSTEM.

1896–97.

Total number of duty calls	376.189
" " " telephone calls	26.846
" " " wagon calls	2,896
" " " prisoners arrested	3.403
" " " miles travelled	2,719
Number of signal boxes in use	50
Miles of aerial wire in lines	60
Miles of insulated wire underground	13.63

ROLL OF HONOR FOR 1896–7.

Inasmuch as officers who are derelict in their duties and who have merited the disciplinary action of the Board of Police, are publicly censured in special orders issued and read to the force, it was believed that officers who had distinguished themselves should as publicly be commended. The following named officers have been commended in general orders during the past year for meritorious conduct, alertness in the discharge of duty, timely and important arrests of burglars and other law-breakers and the recovery of stolen property. One defaulter from Providence, R. I., was captured with the stolen funds — $2,000 — on his person. The general orders are in all cases read in the guard house to the various reliefs at all the roll calls of the day upon which they are issued. This departure in the discipline of the force has had a healthy and stimulating effect upon the members and has proved a spur to a renewed interest in the duties.

Lieutenant William R. Kew, General Order, No. 1, July 17, 1896.

Lieutenant William R. Kew, General Order, No. 6, April 14, 1897.

Sergeant George B. Palmer, General Order, No. 1, July 17, 1896.

Patrolman Peter T. Corcoran, General Order, No. 1, July 17, 1896.

Patrolman Peter T. Corcoran, General Order, No. 2, Sept. 29, 1896.

Patrolman John R. McKenzie, General Order, No. 1, July 17, 1896.

Patrolman Chester E. Ryder, General Order, No. 3, December 1, 1896.

Patrolman Willis L. Gardner, General Order, No. 3, December 1, 1896.

Patrolman Thomas F. Coleman, General Order, No. 3, December 1, 1896.

Patrolman James Boyle, General Order, No. 3, December 1, 1896.

Patrolman Martin A. Maher, General Order, No. 5, December 18, 1896.

Patrolman John Hickson, General Order, No. 6, April 14, 1897.

Patrolman John H. McKay, General Order, No. 7, April 22, 1897.

Patrolman Edward T. Swan, General Order, No. 9, May 19, 1897.

THE MOUNTED SQUAD.

The experiment of a squad of mounted officers for duty in the scattered portions of the residental districts during the warm weather, was found to be eminently satisfactory and successful. The limited number of police, and the length of the routes in such places made it a difficult and unsatisfactory matter to thoroughly and effectively patrol them; but the introduction of a mounted body was found to do the work pretty thoroughly, giving protection to the residents of the outlying districts and measurably preserving gardens and orchards from the raids and destructiveness of thieves and tramps. The experience of two summers warranted the continuance of the service into and through the cold weather and the service has been maintained all through the winter except such periods when the inclemency of the weather made the duty cruel and dangerous to man and beast.

It has been suggested that a bicycle police corps would be effective in the districts patrolled by the mounted force; but I am of opinion that the conformation, physically, of our suburban and outlying streets would render the wheel much less effective, because much less mobile than the horse. It is an open question, also, whether a bicycle subjected to the hard usage it would be called upon to stand in police service would in the end be as economical as a horse; and in this climate throughout the greater portion of the winter a wheel, owing to the condition of streets and roads, would be absolutely worthless. The climatic conditions that obtain in New York and cities further south, where bicycle squads have proved useful and effective, are much more favorable than in Lowell, and the park districts patrolled by such police bodies are naturally level, with few physical difficulties to wheeling, and have been rendered almost perfect for the work by art. All things considered the horse is the most reliable and useful addition to the force for the work required in Lowell.

GEORGE R. DAVIS,
Superintendent of Police.

DESCRIPTION, LIST AND ROSTER OF THE POLICE FORCE.

Name.	Rank.	Age.	Nativity.	Married or Single.	Former Occupation.	When Appointed.	Residence.
Davis, George R	Superintendent	44	Maine	M	Mason	June, 1876	35 Huntington street.
McQuade, James A	Dep. Superintendent	53	Mass	M	Iron Moulder	Jan., 1879	227 Concord street.
Moffatt, William B	Captain	44	Ireland	M	Clerk	March, 1881	35 London street.
Brosnan, James	Lieutenant	37	Ireland	M	Teamster	Oct., 1888	104 Perry street.
Kew, William R	"	45	Vermont	M	Watchman	Feb., 1880	17 Princeton street.
Webster, James E	"	56	Maine	M	Watchman	March, 1865	273 Westford street.
Downey, Hugh	Sergeant	39	Ireland	M	Carpenter	Oct., 1889	183 Pleasant street.
Palmer, George B	"	39	Maine	M	Expressman	Dec., 1887	29 Eighteenth street.
Allen, Thomas E	Inspect, Criminal	45	Mass	M	Plumber	Oct., 1881	32 West street.
Donaldson, David J	" Liquor	41	Canada	M	Morocco Dresser	Feb., 1887	204 Wentworth avenue.
Goodwin, Frank	" Liquor	52	Vermont	M	Watchman	March, 1872	17 Coral street.
Laflamme, Charles	" Criminal	42	Canada	S	Box Maker	March, 1881	43 Second avenue.
McDonald, Michael E	" Claims	51	Mass	M	Clerk	June, 1876	13 Shedd street.
Bumps, William G	Warrant & Ct. Officer	48	Maine	M	Expressman	March, 1881	
Farrington, Henry	" "	59	Maine	M	Pressman	July, 1871	5 Coral street.
Favor, Jacob G	" "	67	N. H.	M	Hatter	April, 1859	
Holman, Alfred M	Turnkey	52	Maine	M	Painter	Oct., 1881	126 Powell street.
McLaughlin, James	"	61	Ireland	S	Shoe Dealer	Dec., 1875	219 Stackpole street.
Libby, Isaac L	Janitor	70	Maine	M	Watchman	May, 1864	11 Coral street.
Connors, Martin	Patrol Guard	34	Ireland	M	Plasterer	Dec., 1887	282 Concord street.
Ryder, Chester E	" "	47	Maine	M	Watchman	May, 1888	855 Lawrence street.
Atkinson, Thomas R	Patrolman	30	Maine	M	Carpenter	May, 1894	11 Read street.
Bigelow, Samuel J	"	32	Australia	M	Clerk	Aug , 1896	479 School street.
Blood, Josiah S	"	55	N. H.	M	Clerk	May, 1882	70 Smith street.
Boyle, James	"	38	Mass	M	Fireman	Feb., 1884	45 Hampshire street.
Brady, Patrick H	"	38	Mass	M	Painter	Dec., 1887	176 Crosby street.
Breault, Eloi N	"	37	Canada	M	Clerk	Dec., 1884	96 Gresham avenue.
Breen, Dennis J	"	36	Ireland	M	Iron Moulder	Dec., 1891	768 Moody street.
Buchanan, John	"	54	Nova Scotia	M	Mason	Jan., 1871	106 Beech street.
Burnett, William C	"	34	Nova Scotia	M	Expressman	May, 1895	43 Hildreth street.
Cawley, Peter	"	39	Vermont	M	Railroadman	Feb., 1884	872 Bridge street.
Clement, Horace W	"	40	Maine	M	Nurse	Oct., 1888	26 Eighteenth street.
Cogger, Daniel W	"	34	Mass	M	Clerk	Dec., 1892	254 Beacon street.
Coleman, Thomas F	"	34	Mass	S	Painter	Dec., 1892	736 Central street.
Corcoran, Peter T	"	44	Ireland	M	Clerk	Feb., 1881	336 High street.
Creahin, John	"	56	Ireland	M	Operative	Feb., 1884	441 Pine street.

DESCRIPTION LIST AND ROSTER OF THE POLICE FORCE.—Continued.

Name.	Rank.	Age.	Nativity.	Married or Single.	Former Occupation.	When Appointed.	Residence.
Crowley, John B	Patrolman	35	Mass	S	Machinist	Feb., 1887	112 Walker street.
Crowley, John J	"	44	New York	M	Teamster	Dec., 1887	32 Chapel street.
Curran, Peter	"	37	Ireland	M	Laborer	Dec., 1891	50 Fremont street.
Dennett, John S	"	48	N. H	M	Second Hand, Cotton	Jan., 1885	55 Read street.
Dow, James E	"	49	Maine	M	Carpenter	Oct., 1889	50 C street.
Duncan, Alexander	"	32	Scotland	M	Wool Sorter	May, 1891	401 Lincoln street.
Dunlavy, James F	"	50	Mass	M	Iron Moulder	Dec., 1880	158 Avon street.
Dwyer, Philip	"	29	Ireland	S	Barber	July, 18 5	262 Concord street.
Fitzgerald, Thomas H	"	30	Mass	M	Machinist	Dec., 1894	245 Manchester street.
Fitzpatrick, Patrick	"	52	Ireland	M	Clerk	Oct., 1881	30 Pine street.
Fox, Edward	"	52	Ireland	M	Watchman	Feb., 1884	Lawrence street, near Moore.
Fox, Frank	"	37	Mass	M	Student	Oct., 1889	20 Chambers street.
Fox, John W	"	30	Mass	M	Print Works	May, 1891	848 Bridge street.
Ganley, John J	"	43	Mass	M	Milkman	Dec., 1894	81 Boynton street.
Gardner, Willis L	"	58	Maine	M	Watchman	Feb., 1880	21 Shedd street.
Grady, William B	"	43	Mass	M	Plasterer	Mar., 1881	39 Lundberg street.
Gregg, Charles	"	44	N. H	M	Butcher	Feb., 1880	96 Fort Hill avenue.
Grinnell, Enoch N	"	54	Mass	M	Carpenter	Mar., 1881	110 Appleton street.
Hessian, Stephen F	"	58	Ireland	M	Clerk	May, 1894	43 Claire street.
Hickson, John	"	43	Ireland	M	Clerk	Dec., 1880	60 ammoth Road.
Hill, Charles S	"	37	Mass	M	Watchman	May, 1895	56 Fourth street.
Hill, Edward E	"	33	Mass	M	Blacksmith	May, 1894	308 High street.
Hogan, David H	"	36	Mass	M	Clerk	Dec., 1892	82 Varney street.
Holland, James E	"	42	Penn	M	Printer	Oct., 1881	34 Second avenue.
Howard, Cornelius	"	50	Ireland	M	Teamster	Feb., 1884	79 Andrews street.
Hurley, James F	"	39	Mass	M	Machinist	Dec., 1891	778 Moody street.
Ingalls, Lindsey E	"	39	Mass	M	Machinist	Oct., 1888	110 Beach street.
Jones, William B	City Hall Officer	66	New York	M	Stone Cutter	Oct., 1877	221 Branch street.
Kane, Bartholomew	Patrolman	33	Mass	S	Wool Sorter	Dec., 1892	88 Agawan street.
Kiernan, Michael	"	32	Ireland	S	Operative	May, 1895	12 Broadway.
Lane, Daniel W	"	45	Mass	M	Butcher	Jan., 1879	16 Smith avenue.
Leighton, Euric L	"	35	Maine	M	Carpenter	May, 1895	15 West Fourth street.
Leighton, John L	"	32	N. H	M	Expressman	Oct., 1889	55 Wamesit street.
Lennon, Michael J	"	47	N. B	M	Engineer	May, 1888	10 Pleasant street.
Libby Albert E. J	"	64	Maine	S	Watchman	Mar., 1869	61 Eighteenth street.
Mackenzie, John R	"	38	N. S	M	Clerk	May, 1888	398 Westford street.

Maguire, Hugh	Patrolman	33	New York.	S	Hackman	Dec., 1892	178 Perry street.
Maher, Martin A	"	35	Ireland	M	Machinist	Dec., 1892	92 Tenth street.
Markham, James	"	37	Ireland	M	Currier	Dec., 1891	12 Burns street.
Marshall, Frank K	"	24	Vermont	S	Tinsmith	Mar., 1897	57 Claire street.
Marshall, George W	"	41	Mass	M	Overseer	Feb., 1884	485 Parker street.
McCann, Matthew J	"	32	Australia	M	Machinist	June, 1895	217 Salem street.
McCloughry, Thomas	"	33	Ireland	M	Clerk	May, 1894	66 West Fourth street.
McIntee, Cormack	"	50	Ireland	M	Carpenter	Jan., 1885	109 Jewett street.
McKay, John H	"	37	Mass	M	Wool Sorter	Dec., 1884	138 Bartlett street.
McNabb, James	"	53	Mass	S	Teamster	Dec., 1875	9 West Meadow Road.
Molony, Thomas A	"	39	Mass	M	Foreman	May, 1895	44 Whipple street.
Moore, Francis E	"	46	Mass	S	Engineer	Oct., 1889	545 Middlesex street.
Mulry, John J	"	30	Mass	S	Steam Fitter	Dec., 1891	71 Bowers street.
Murphy, Anthony	"	40	Ireland	M	Coachman	Dec., 1892	191 Concord street.
O'Brien, William H	"	38	Mass	M	Railroadman	June, 1889	37 Hampshire street.
O'Connell, John	"	56	Ireland	M	Operative	Feb., 1880	199 Moore street.
O'Connell Michael	"	32	Ireland	M	Clerk	Dec., 1892	36 Linden street.
Page, Alonzo J	"	58	Maine	M	Carpenter	Jan., 18 9	4.0 Westford street.
Perkins Everett E	"	32	N. B	M	Beltmaker	June, 1895	479 School street.
Provencher, Napoleon	"	42	Mass	M	Ornamenter	Dec., 1884	39 Fourth avenue
Quinn, Henry F	"	47	Ireland	M	Loom Fixer	Dec., 1887	45 Durant street.
Rielly, James	"	54	Ireland	S	Carpenter	Aug., 1881	150 Pleasant street.
Ryan, Bartholomew	"	38	Ireland	M	Mort rman	Dec., 1892	568 Lawrence street.
Sanborn, Thomas J	"	61	N. H	M	Wa'chman	May, 1858	126 Grove street.
Sparks, John F	"	35	Mass	M	Janitor	May, 1895	92 Bellevue street.
Swan Edward T	"	37	Mass	M	Book Agent	Dec., 1892	42 Blossom street.
Tilton, Herman N	"	53	Mass	M	Iron Moulder	——1873	57 South Walker street.
Tilton, John W	"	54	Mass	S	Patrol Driver	May, 1894	12 Whipple street.
Walsh, John A	"	41	Mass	M	Tinsmith	Mar., 1883	53 Third avenue.
Welch, John N	"	30	Ireland	S	Clerk	May, 1895	511 Lawrence street.
Welch, Redmond, Jr	"	35	Mass	S	Expressman	Feb., 1887	42 North street.
Whitney, Frank H	"	39	Maine	M	Clerk	June, 1889	108 D street.
Whittaker, John T	"	47	England	M	Seaman	May, 1888	63 Congress street.
Whitworth, James H	"	38	England	M	Carpenter	Dec., 1894	32 Crowley street.
Young, George H	"	34	Maine	M	Railroadman	Aug., 1896	

EMPLOYES.

Burns, Michael J	Electrician	36	England	S	Electrician	April, 1891	24 Fulton street.
Howard, James H	Operator	34	Mass	M	Clerk	Jan., 1891	880 Gorham street.
Davis, Frederick L	Driver of Patrol	37	Maine	M	Iceman	Dec., 1892	Market street.
Kilburn, James W	" "	40	Mass	M	Clerk	Dec., 1890	92 Shaw street.
Crowell, Albert	Hostler	49	Mass	M	Clerk	April, 1896	378 Rogers street.
Wallace, Margaret	Matron	48	Canada W.	S	Nurse	Sept., 1887	Police Station.
Corcoran, Lizz'e	Charwoman	45	Ireland	M	Housekeeper	July, 1895	11 Cady street.

ANNUAL REPORT

OF THE

TRUSTEES

OF THE

CITY LIBRARY

OF LOWELL,

FOR THE YEAR 1896.

LOWELL, MASS.:
BUTTERFIELD PRINTING AND BINDING CO.
1897.

Administration of the City Library, 1896.

BOARD OF TRUSTEES.

WILLIAM F. COURTNEY, Mayor of the City.

GEORGE F. RICHARDSON, STEPHEN J. JOHNSON,

FRANK P. PUTNAM, THOMAS WALSH,

PHILIP J. FARLEY.

LIBRARIAN.

FREDERICK A. CHASE.

ASSISTANT LIBRARIAN.

HARRIET F. HILL.

ASSISTANTS.

WALTER H. GILMAN, STEPHEN T. WYMAN,

CLARA BEARD, BERTHA G. KYLE,

MARION F. BROWN, ALICE M. MYERS,

HARRY C. BOWEN, GEORGE H. CHAPMAN.

SUPERINTENDENT OF READING ROOM.

EDWARD F. SLATTERY.

REPORT OF THE TRUSTEES.

LOWELL, MASS., Dec. 31, 1896.

To the City Council of the City of Lowell:

The Trustees of the City Library of Lowell respectfully submit the following report for the year 1896:

FINANCIAL STATEMENT.

RECEIPTS.

Balance Jan. 1, 1896 (insurance money)	$ 4,691.60
Appropriation by City Council	10,000.00
Dog licenses	3,705.19
Fines and other receipts	414.73
	$18,811.52

EXPENDITURES.

Salaries	$ 7,758.14
Heating	2,339.09
Lighting	1,077.42
Books	3,070.72
Periodicals	1,024.91
Binding	641.30
Sundries	1,217.94
Balance	1,682.00
	$18,811.52

In regard to the balance of sixteen hundred, eighty-two ($1682) dollars we would say that this is not an unexpended balance from any appropriation by the city, but is the balance from the *insurance money* paid the library on account of loss by fire in April, 1891.

We have regarded this insurance money as a special fund to be expended in repairing a library which was badly damaged by fire, in replacing old and damaged books, and by the purchase of new books, increasing the value of the library. It is right, we think, that this money should be so regarded, as it represents a damaged library, and as the premium for the insurance received was paid for each year, for a number of years, out of our annual appropriation from the city, and we beg that in estimating our needs for the coming year the small balance remaining of this special fund be not regarded. We would say further in regard to it, that as it has been in the hands of the City Treasurer since 1891, the city and not the library has got the benefit of the use of it.

Starting with thirteen thousand five hundred ($13,500) dollars in 1891 this amount has by degrees been reduced to the present balance of sixteen hundred, eighty-two ($1682), as it has been our policy to spend the money in gradually repairing the losses by the fire and in purchasing new books as the needs of the library became known to us.

Referring to the above financial statement for 1896, and separating from the sums included under expenditures the amounts paid for books and periodicals and

the balance, it will be seen that the sums expended for salaries, heating, lighting and sundries amount to $13,033.89.

As these are all necessary expenses occurring each year, it is evident that an appropriation of thirteen thousand ($13,000) dollars is necessary to pay the actual running expenses of the library before a single book can be bought. Last year the appropriation was only ten thousand ($10,000) dollars, and not a book could have been purchased had it not been for the fact that we had a balance of four thousand six hundred, ninety-one ($4,691.60) dollars and sixty cents of the insurance money above referred to.

It has been the custom of the City Council in years past to appropriate a sum sufficient to pay the running expenses of the library, leaving us the amount received from the dog licenses free for the purchase of new books and periodicals for the reading room.

We would therefore respectfully ask your honorable body for the sum of thirteen thousand ($13,000) dollars to pay the actual running expenses of the library for the year 1897.

During the year we have continued the work of supplying the Information Desk with reference lists which shall inform our patrons of the resources of the library in some special subject. In October we began an important work in the publication of these lists for gratuitous distribution. The first bulletin had a special list on Botany, and was mailed to the teachers of the public schools and to many others interested in this

subject and distributed freely at the library. This bulletin was followed by one on Chemistry, Chemical Technology and Manufactures. This list was intended to advise the many who are interested in industrial enterprises in our city of the resources of the library in technical books directly pertaining to these industries. We desired also to aid and co-operate in what we believe to be a very important work which has been begun in our city in the establishment of the Lowell Textile School for instruction in the theory and practical art of textile and kindred branches of industry. We feel sure that the library has been and may be an important factor in the industrial progress of our city and as an adjunct to the special work of the Textile School. Our bulletin of books on Chemistry and Manufactures makes a good showing for the library, and we believe that we are well equipped with books in these departments. We shall make additions as the occasion serves and as the needs of our patrons become known to us, and we would advise those interested that, besides the books referred to in this bulletin, we are in constant receipt of the following technical papers and magazines:

Chemical News.
Dyer and Calico Printer.
Fibre and Fabric.
Industrial Review and Textile Reporter.
Journal and Abstracts of the Chemical Society.
Manufacturer's Review and Industrial Record.
Popular Science Monthly.

Popular Science News.
Textile Colorist.
Textile Manufacturer.

We intend to continue the publication of these bulletins monthly, and besides the publication of some special list in each bulletin to give the additions of new books for the month.

The work of displaying the resources of the library in the form of exhibitions of photographs and plates, which was begun last year in the exhibition of the library's collection of photographs and the collection of plates illustrating St. Mark, has been continued this year; first in the exhibition of plates illustrating the Sidon Sarcophagi, and a large collection of plates, mostly in color, which were chiefly of textile fabrics from examples in the South Kensington Museum, a collection of fac-similes of Rembrandts etchings and some wood engravings by Durer were also exhibited with this collection.

Following this was an exhibition of many very fine photographs of Alpine views known as the Sella collection. We were enabled to make this very interesting and instructive exhibition through the courtesy of the Appalachian Mountain Club of Boston, to whom our acknowledgement and thanks are due. The third exhibition for 1896 was a miscellaneous collection of plates, chiefly architectural, as follows:

F. Hopkinson Smith's Venice of to-day.
Corner and Suderholtz, Examples of domestic colonial architecture in New England.

Chandler, The colonial architecture of Maryland, Pennsylvania and Virginia.
Gotch, Architecture of the renaissance in England.

We hope to be able to continue these exhibitions from time to time, as a great many people thus see important works which they do not seem to find convenient to see when it is necessary to ask for them at the library.

The library has received during the year a very important gift from C. C. Hutchinson, Esq., of this city, consisting of nearly one hundred volumes, comprising the reports of the Grand Commandery of Knights Templars and the Massachusetts Council of Deliberation, the Freemason's Repository and Liberal Freemason. The early volumes of some of these publications are very rare, and complete sets of them, as these volumes are, are believed to be unique.

Appended are the usual tables of the growth and use of the library and a full list of donors.

WILLIAM F. COURTNEY,
GEORGE F. RICHARDSON,
FRANK P. PUTNAM,
STEPHEN J. JOHNSON,
PHILIP J. FARLEY,
THOMAS WALSH.

Condition of the Library.

Volumes purchased	1,685
Volumes added by gift	146
Volumes added by binding periodicals	120
Worn-out books replaced	118
Duplicates purchased	140
Total number of volumes added	1,573
Total number of volumes in the library	55,398
Volumes lost and not paid for	39
Estimated value of the same	$39.14
Periodicals and papers subscribed for	178
Periodicals and papers given	13
Number of volumes used, home and reference	146,616
Number of volumes consulted in Reference Room	18,111
Number of post-cards sent to delinquents during the year	2,897
Applicants received during the year	2,168
Applicants who did not call for cards	114
Names registered during the year	2,054
Number of names registered Dec. 21, 1895	11,212
Total registered to date	13,266
Library open 306 days	
Total circulation	146,616
Average daily circulation	479
Largest monthly circulation (March)	15,869
Smallest monthly circulation (July)	8,895
Largest daily circulation (February 8)	1,169
Smallest daily circulation (August 4)	186
Percentage of fiction read	.669
Percentage of other classes	.331

List of Donors to the Library, 1896.

NAMES.	Pamphlets.	Volumes.
Astronomical Society of the Pacific	1	
Boston, City of		2
Bourbonniere, A		1
Brandon, Edward J		1
Campbell, James L	61	168
Cust, Robert N		3
Davis, W. A		1
Dudley, Mrs. Mary E		22
Gildhaus, C		1
Greene, J. M., D. D	1	13
Harvard University		1
Hayden, N. W. J		1
Hutchinson, C. C		91
McCormick, Cyrus H		1
McNamee, J. H	1	
Manchester, Rev. L. C		4
Marshall, Mrs. J. N	1	
Michigan State Board of Health	1	
Middlesex Bar Association		1
New York Securities Co		1
Nichols, Mrs. C. P		39
Nottingham Free Public Library	1	
Olin, Hon. W. M		11
Providence, City of		1
Royal Society of Canada		1
Smiley, Miss Dora P		1
Smith, Miss K. M		2
Spalding, H. K		39
Stevens, Hon. Moses G		2
Stuart, Joseph A		2
Thayer, Miss Wildie		1
United States Department of the Interior	4	3
Carried forward	71	414

NAMES.	Pamphlets.	Volumes.
Brought forward	71	414
United States Department of War	1	
Smithsonian Institute		3
Winsor, Justin	1	
Woman's Relief Corps		1
Total	73	418

England, H. . . . . Map of Lowell
Robbins, Miss N. P. H. . . . . Cabinet for monograph of St. Mark
Spalding, H. K. . . . . 15 newspapers

ANNUAL REPORT

OF THE

CITY SOLICITOR

OF THE

CITY OF LOWELL,

FOR THE YEAR 1896.

LOWELL, MASS.:
LOWELL SUN PRINT: SUN BUILDING:
1897.

REPORT

Office of the City Solicitor,
Lowell, Mass., March 1, 1897.

Gentlemen of the City Council:

In compliance with the requirements of the City Ordinances I respectfully submit the following report of the business of this office from March 1, 1896, to the date of this report:

No small part of the labor which has devolved upon this office during the past year, as also during the year 1895, has grown out of recently enacted Statutes, some of which are special to the City of Lowell, while others are general statutes applicable to the cities of the Commonwealth.

The following special acts of 1895 resulted in litigation, to wit:— Chapter 261, entitled: "An Act to Provide for the Redivision of the City of Lowell into Wards;" Chapter 475, entitled: "An Act Relative to the System of Textile Schools;" and Chapter 75, entitled: "An Act Relative to the Allowance of Interest on Abatements of Taxes made by the Superior Court." An account

of the litigation growing out of these several acts of the legislature, the construction of which was in dispute, is included in my report of last year.

Another statute of 1895, the construction of which has caused considerable trouble and at one time threatened litigation, is Chapter 332, entitled: "An Act Relative to Boards of Health in Cities." The terms of this act are so ambiguous that a construction which would be acquiesced in by persons whose interests or title to office would be adversely effected thereby was hardly possible.

Different constructions were adopted and acted upon in the various cities and the statute was differently construed by able lawyers. Happily, however, the question was finally settled in this city without litigation.

The special statutes of 1896 effecting this city, are: Chapter 283, entitled: "An Act to Amend the Charter of the City of Lowell;" Chapter 415, entitled: "An Act to Amend the Charter of the City of Lowell;" and Chapter 325, entitled: "An Act to authorize the City of Lowell to incur indebtedness beyond the limit fixed by law for the purpose of erecting new School Buildings."

The first mentioned of these acts of 1896 grew out of the investigation and report of the finance commission appointed by the Mayor in 1895. It was thought by the members of this commission and many others interested in the good government of our city, that the errors of administration dis-

covered and pointed out in said report were such as to call for radical changes in the charter, and a bill was accordingly prepared under the supervision of certain members of the commission embodying the changes that were deemed best suited to correct such errors.

The objects sought to be accomplished by the bill were in a line with the theories of modern municipal reformers, and were in brief, first: A complete separation of the legislative and executive departments of the city government; second: The enlargement of the authority of the Mayor in reference to appointments and removals of city officers; third: An increase of authority of the heads of departments, and fourth: The establishing of a supply department from which all material and supplies to be furnished the city were to be purchased.

The bill gave to the Mayor the power to nominate all heads of departments subject to confirmation or rejection by the Board of Aldermen, and gave to the Mayor the absolute power of removal of these officers subject to certain conditions which were intended to prevent removals for partisan reasons.

All of the heads of departments were by the provisions of the bill to be appointed without term, making the tenure of such officers practically during good behavior.

It also provided for the creation of a supply

department, the appointment or election of its head or chief, the manner in which purchases should be made and the accounts of the department kept, prohibited the City Council or any member thereof, from having any part in the making of contracts, the employment of labor, or the expending of money, except for the incidental expenses of the City Council; and directed that all revenues received by the city from whatsover source shall be credited to one general fund to be known as the General Treasury Fund.

These were substantially the provisions of the bill as first proposed. It was not to be expected that a measure so radical should be passed without much consideration and discussion; in fact it met with violent opposition, and seemed not at all likely to be reported by the Committee on Cities to whom it was referred, or adopted by the legislature.

The chief objections to the measure were that it gave too much power to the Mayor in connection with the appointments to and removals from office; that the indefinite term of office provided for in the bill was not desirable, and that the terms of the bill were vague, indefinite and impracticable.

After several hearings before the Committee on Cities, a conference was held between those who were immediately concerned in promoting the measure, and persons who had been most conspicuous as objectors.

After much discussion in the effort to find some common ground on which the two parties could stand it was finally agreed that the city officers should be elected by the City Council in the same manner and for the same term as they were previously chosen; that the Mayor should not have authority to remove any of said officers without the approval by concurrent vote of both branches of the City Council; that the City Council should have the power to remove by a two-thirds vote any of such officers without the consent of the Mayor. This agreement having been reached the opposition to the proposed amendment was withdrawn

The Committee on Cities added the referendum clause and the bill was reported and passed.

The section of the bill providing specifically for appointments to office by the Mayor was stricken out in pursuance of the agreement mentioned above, but the first section which give to the Mayor all the "executive powers" then vested in the City Council, or either branch thereof, was not eliminated therefrom, probably for the reason that it did not occur to anybody that these words would be construed as including the power of appointment to office.

The law was accepted by the legal voters of the City at the last state election, and very soon thereafter it began to be claimed by certain per-

sons that under the bill, the Mayor still had the right to appoint all the officers.

Several appointments were made, including that of Superintendent of Lands and Buildings, and the question of the Mayor's right so to appoint was taken to the Courts for judicial determination.

The importance to the city of having the question definitely settled and the confusion of authority and consequent detriment to the public business which would result if it were not so determined, was so apparent that in order to hasten the decision, the City Council, by resolution authorized the Solicitor to appear for Mr. Varnum, one of the contestents for the office, and also authorized the Mayor to designate counsel to take the other side of the question at the expense of the City.

The decision, however, did not determine the question as to any officers except the heads of executive departments, created by ordinance, nor was there in the opinion of the Court any intimation which would aid in determining whether or not, the Mayor might appoint the City Clerk, Treasurer, Auditor, Solicitor and other like officers. Pending the decision of the Court in this case the legislature passed an act giving to the City Council the same power and authority in reference to election and appointment of city officers and the confirmation of appointments which it had prior to the enactment of the charter amendment under consideration.

The decision of the Court was announced February 19th, and the new act was approved by the Governor February 20th; but in the meantime appointments were made to all the principal offices of the city by the Mayor, including those that were not then vacant, the term of the incumbent having not yet expired.

The City Council has also under the act of 1897, elected persons to fill the same offices, and the confusion and conflict of authority which it was hoped might be avoided by the litigation is the result.

It is probable that much more litigation will grow out of this condition of affairs, and the extent to which the city will be effected financially cannot be foreseen.

But the question who are the proper and legal officers of the city is by no means the only grave one growing out of the adoption of the charter amendment of 1896.

How far the act, especially that clause relating to the purchase of material and supplies by the chief of the supply department, and the provision requiring the revenues of the City to be placed in one general fund, is applicable to the School Committee, the Cemetary Trustees and the Trustees of the Public Library; the question whether the member of the Water Board elected by the City Council is legally a member of the Board and can take part in the executive business

of the Board, are important questions and difficult to decide.

Moreover, the statute effects changes so radical in the charter and ordinances, repealing and annulling many of the provisions of both, that the present members of the City Council, and the various boards and committees of the city, are left groping in the dark and unable to determine what their powers, duties and authority are.

For these reasons and because by reason of the frequent important amendments to the charter that have been made in recent years it is difficult to ascertain or determine just what its provisions are, I deem it of the first importance that we have a complete revision of the charter and ordinances as soon as may be and recommend that the City Council take such action in the matter as they shall deem best to accomplish this purpose.

The general acts of 1896 effecting cities and towns which are applicable to the City of Lowell are: Chapter 244, entitled: "An Act Relative to the Division of the Cities into Voting Precincts;" Chapter 314, entitled: "An Act to Provide for the Appointment of a Reserve Police Force in Cities;" (This act does not take effect in any city until accepted by the City Council with the approval of the Mayor.) Chapter 332, entitled: "An Act Relative to the Licensing and Regulating of Stables in Cities;" Chapter 380, entitled: "An Act Relative to Vacancies in the Office of the

Mayor;" Chapter 449, entitled: "An Act Relative to the Employment of Laborers in the Cities of the Commonwealth;" Chapter 269, entitled: "An Act Relative to the Issue of Notes, Bonds and Scrip by Cities or Towns;" Chapter 455, entitled: "An Act to Authorize Cities and Towns to Appropriate Money for Memorial Observances in Honor of Firemen;" Chapter 498; entitled: "An Act to Authorize Cities and Towns to Use the McTammany Voting Machines in State, City and Town elections;" Chapter 517, entitled: "An Act Relative to the Public Service of the Commonwealth, of the Cities and Towns therein; and the Employment of Veterans therein;" and Chapter 450, entitled: "An Act Relative to Injuries Received on Highways resulting from Snow or Ice;" This last named act is one of some importance to the city.

It provides that "No city or town shall be liable for any injury or damage to person or property hereafter received or suffered in or upon any part of a highway, causeway or bridge, by reason or in consequence of snow or ice thereupon if the place at which the injury or damage was received or suffered was, at the time of the accident, otherwise reasonably safe and convenient for travelers."

The effect of this statute upon our city will be appreciated when we recall the large number of claims that are annually presented against the city

for personal injuries caused by ice and snow upon the sidewalks and the opportunity which before the passage of this act was presented for people who had received injuries more or less severe from their own carelessness and without any fault or negligence on the part of the city or its officers, to obtain compensatien from the city therefor.

The frequent and rapid changes of temperature in our climate rendered it possible for persons receiving such injuries to give notice to the city of the alleged defect on which their action was based after the ice and snow had melted away or the change of weather had so altered the condition of the sidewalk or street at the place of the injury, that it was impossible for the city to show exactly what its condition was at the time the accident occurred, and it has been only by the utmost vigilance on the part of the police in discovering and reporting accidents of this kind that the city has been saved from the payment of a large number of really fraudulent claims.

It is absolutely impossible in a climate like ours to keep the sidewalks of a large city free from ice and snow, and it is very easy by slight exaggeration to magnify the slippery condition of the sidewalk which existed and was inevitable into a defect for which the jury would hold the city responsible.

While this act was pending before the legislature of 1896, I gave my views to the Committee

and favored its passage. An effort is being made to induce the legislature of 1897 to repeal this law and although not specifically instructed to do so by the City Council, I deemed it my duty to appear before the Committee in opposition thereto.

A large number of cities and towns were represented by their Solicitors or other officers, and it seemed to be the universal opinion of those who have had practical experience in the matter that the statute was salutary in its effect and ought not to be repealed.

Before leaving this subject of legislation, I wish to express my emphatic disapprobation of the legislative methods which have been pursued in reference to these charter amendments and acts effecting the city and its several departments and boards.

No act should be passed making such changes without a careful review of the entire charter and all previous acts of the legislature intended to be effected thereby, and such portions of the charter and such previous acts and parts of acts should be specifically referred to and pointed out in the amendatory act. There should be left no opportunity for repeal by implication.

The general repealing clause so often found in legislative enactments of the kind referred to, namely: "All acts and parts of acts inconsistent herewith are hereby repealed," is generally

an open door to vexatious, expensive and sometimes disastrous litigation.

It is a sure indication of hasty and illconsidered legislation and generally a confession that those seeking it are ignorant of the effect of the amendment which they advocate. Again, the language of city charters and acts of the legislature amending the same, should be carefully considered and every object intended to be accomplished should be specifically stated in clear and unmistakable language. In state constitutions which are intended to be in large part a statement of the general principles of government much must necessarily be left to legislative and judicial construction, but in the charter of a city, which is a delegation by the state legislature to the local body of certain limited authority for specific purposes, and the provisions of which are to be strictly construed and followed, the utmost care should be taken to make the language clear and explicit, and as little as possible should be left to inference and implication.

Moreover, charter revisions and amendments should be drawn by persons who not only possess skill in the use of language, and the requisite legal knowledge, but by those who have also had practical experience in municipal affairs, and are familiar with the actual workings of the several departments of the city goverment.

THE HORSE INVESTIGATION.

Early in 1896, the Street Committee sold several horses belonging to that department, supposed to be unfit for use, and purchased others in their stead. The circumstances of their purchase and the prices paid attracted much attention and comment, and an investigation was ordered by the City Council.

The Committee of Investigation requested the Solicitor to present the evidence and assist in conducting the investigation, which he did.

The findings of the committee and the subsequent prosecution and conviction of certain persons for conspiracy in connection with this purchase are familiar and need not to be dwelt upon. I cannot doubt that the beneficial effects and salutary lesson of the investigation will long be felt in this city.

It shows that the citizens are alert and watchful of their officials and will not condone such breaches of trust and malfeasance on the part of those entrusted with authority.

Public opinion is the real ruler in a democracy, and it is gratifying to know that however faithless certain persons may have been who have held public office, the standard of official morality in our city is still high.

CASES DISPOSED OF AND PENDING.

While a large number of cases have been com-

menced against the city during the past year comparatively few have been finally disposed of.

6071. *Annie Given vs. City of Lowell.*

This was an action of tort for personal injuries alleged to have been received by reason of a defect in the sidewalk on the westerly side of Gorham Street in front of the new post-office building. An investigation showed that the defect complained of actually existed, and resulted from the changes that were made in the sidewalk in consequence of grading in front of the post-office.

The liability of the city seemed reasonably certain, and the injuries receive were severe. The case was settled by the payment of the sum of $450.00 and costs, amounting in all to $488.11.

5514. *Michael Howard vs. City of Lowell.*

This was an action of tort for personal injuries received by the plaintiff while in the employ of the city as one of a gang of men engaged in the work of constructing a sewer in Lamb Street.

A stone was being raised from the pit by means of a shear pole when the pole fell and struck the plaintiff, crushing his skull and inflicting a very serious and permanent injury.

The case was tried before a jury in 1895. The trial resulted in a disagreement of the jury. In view of the fact that the damages if the plaintiff prevailed would be very large and the expenses of trial considerable, I deemed it wise to settle this case, which was done by the payment of the sum of $500.00 without costs.

5679. *Mary J. Wright vs. City of Lowell.*

This was a petition for the abatement of a tax assessed against the petitioner. It was presented to the Superior Court on an agreed statement of facts and on appeal to the Supreme Judicial Court. The questions raised were purely questions of law and were decided in

favor of the petitioner, who obtained judgment for an abatement amounting with costs to $518.97.

7204. *Michael Reagan vs. City of Lowell.*

This was an action of tort for personal injuries received by the plaintiff by reason of an alleged defect in the sidewalk on the easterly side of Market Street, opposite the lot of one Keyes.

The plaintiff contended that there were loose bricks in the sidewalk which occasioned him to fall, fracturing his leg.

The case was tried in the Superior Court at the September term, 1896, before a jury, and resulted in a verdict for the defendant. No exceptions were taken.

7203. *Hannah McCarthy vs. City of Lowell.*

This was an action for personal injuries growing out of an alleged defect in the sidewalk on the easterly side of Jefferson Street.

The defect consisted of a faulty construction of the walk and and an accumulation of ice and snow thereon. The writ was dated April 11, 1896, and was entered in the Superior Court the first Monday of June, 1896.

An investigation of the case showed that the evidence which the defence could offer was unsatisfactory and that the injury was a broken arm. A settlement was effected by the payment of $162.00 without costs.

7052. *Cornelius C. Collins vs. City of Lowell.*

This was an action of contract brought by the plaintiff to recever his salary as Superintendent of the City Farm, for the term of one year from January 1, 1896. The writ was dated April 11, 1896, and was entered in the Superior Court the first Monday of June, 1896.

It will be remembered that the Overseers of the Poor elected at their first meeting in January, a Superintendent of the City Farm to take the place of said Collins, who claimed that said election was without authority of

law and void, and that he still had a right to hold the office and receive the compensation thereof.

The case was fully prepared for trial and was expected to be tried at the September sitting of the Superior Court, but, after conferences with the plaintiff's counsel, the case was discontinued without expense to the city.

316. *Charles Wigren vs. City of Lowell.*

This is the case reported as No. 4523 in my last report, and was at that time pending upon the plaintiff's motion to take off a non-suit. No action having been taken by the plaintiff the case is practically disposed of.

Attorney General, ex rel. George J. Carney, et al., vs. Warren Sherburne.

This was an information brought by the Attorney General on behalf of the Commonwealth on the relation of George J. Carney and the Lowell Institution for Savings, praying for an injunction to restrain the defendant, Warren Sherburne, who was the proprietor of the old city hall building and lot, having purchased the same from the city, from extending his building on the westerly side of said lot, on the ground that said extension was an infringment of the rights of the public therein.

It was alleged that the lot of land bounded easterly by the westerly line of the old city hall, and northwesterly by the southeasterly line of Shattuck Street, southerly by the passage in the rear of said old city hall and extending to said Shattuck Street, and northerly by the southerly line of Market Street had been thrown open and dedicated to the public about the year 1829, as a footway and public square and had been continually used as footway and public square until the sale by the city to said Sherburne.

Prior to the sale of the city hall lot, the question of the rights of the public in the tract of land described

had been brought to my attention and from my investigation, I was satisfied that the public had acquired rights in a portion of said tract, but had not any right to that portion of said lot immediately adjoining said city hall and extending about four feet northwesterly therefrom.

It was a question of some importance as the land was valuable and of course no person would be willing to buy and pay therefor its full value if it could not be used for building purposes.

I decided after some consideration that it would be for the best interests of the city to assure the purchaser of his titled by giving a warranty deed of the whole lot including said strip containing 360 square feet, which was accordingly done, and when the suit was brought against Sherburne, the city was notified thereof and to come in and defend its title.

I appeared in the case and a hearing was had before Judge Holmes, in Cambridge, in April, 1896.

The Court sustained my position and dismissed the petition. The cost to the city for its part in defending the action, was less than $50.00, and the increased price obtained by the city for the lot by reason of the warranty, was upwards of $3000.

498. *Otis A. Merrill et al. vs. City of Lowell.*

This is the case reported as No. 5309, in my last report. Since that report was filed, the case has been referred to Walter Adams, Esq., of Framingham, as Auditor, and has been fully heard, but the Auditor has not yet filed his report.

2971. *Ellen Martin vs. City of Lowell.*

Since my last report was filed, this case has been dismissed from the docket.

4499. *John H. Doloff vs. City of Lowell.*

This case has also during the present year been dismissed.

30. (Equity) *The Middlesex Co. vs. City of Lowell.*

In this case, after several conferences with the City Engineer, Committee on Sewers and counsel for the plaintiff, the case was disposed of by entering the following decree by agreement:

"The City of Lowell shall, within one year from date, extend the outlet of said intercepting sewer from its present outlet westerly in the same general direction in which the same now debouches, for a distance of twenty or more feet, and shall erect a proper wall to secure the same at and on the line extending into the Concord River, which is delineated on plan hereto annexed and made part hereof, in order thereby to abate and thus discontinue the nuisance complained of. The performance whereof by the said City of Lowell shall be in satisfaction of all damage done by said respondent to said complainant company."

This entry happily disposes of a troublesome and expensive litigation with very small expense to the city, and at the same time abates the nuisance which threatened the health and comfort of the employes in the plaintiff's mill, and many other persons whose business required them to remain several hours during each day within reach of the offensive odors arising therefrom.

67. *Charles E. Adams vs. City of Lowell.*

This is a petition to the County Commissioners of Middlesex County for an abatement of taxes assessed against the plaintiff in 1889.

Since my last report was filed a further hearing has been had before the County Commissioners and a decree entered sustaining the contention of the city and dismissing the petition.

Counsel for the plaintiff has brought in the Supreme Judicial Court a petition for a writ of certiorari against the County Commissioners for alleged error in their rulings and proceedings. The notice is returnable March 1st, current.

491. (Equity) *Smith & Winchester Co. vs. City of Lowell.*

This action was brought in the Superior Court for Suffolk County. The plaintiff claimed the right to certain moneys in the hands of the city and due under a contract between the city and one Crocker. There were several claimants for this money, among whom was Thomas Costello & Co., of this city.

On receiving a bond to indemnify the city, the money was paid over to said Costello & Co., who defended the suit. The plaintiff prevailed, but the judgment obtained was paid by said firm of Costello & Co., in pursuance of the condition of said bond, and without cost or expense to the city.

1208. *Celeste A. Butcher et al. vs. City of Lowell.*

This is a petition to the Superior Court for a jury to assess the damages alleged to have been sustained by the petitioners in consequence of the alteration of the grade crossing at Pawtucket Street, which damages are alleged to have resulted from a discontinuance of a portion of Pawtucket Street on which the land of the petitioners fronted, and the raising of said Street at the bridge crossing the railroad track and in front of the petitioner's land.

Whatever damages may be recovered in this case, if any, the City of Lowell will be compelled to pay in the first instance, but ninety per cent. thereof will be returned to them from the Boston & Maine Railroad and the State under Chapter 428 of the Acts of 1890 in relation to grade crossings.

1214. *George W. McIntire vs. City of Lowell.*

This is a petition to the Superior Court for the assessment of damages alleged to have been sustained by the petitioner by the taking of land and the laying out by the County Commissioners of the highway known as Princeton Street in this city.

The Commissioners awarded the petitioners $60.00 which they refuse to accept. The petition was filed March 20th, and an order of notice issued returnable the first Monday of May, 1896. No hearing has yet been had.

1215. *Martin H. Nolte et al. vs. City of Lowell.*

This also is a petition to the Superior Court for a jury to assess the damages alleged to have been sustained by the petitioners in the taking of land and the laying out of Princeton Street.

The County Commissioners awarded the petitioners the sum of $650.00, which award the petitioners have refused to accept. The petition was filed in Court March 21, 1896, and an order of notice issued thereon returnable the first Monday of May, 1896. No hearing of this case has yet been had.

1220. *James Boyle vs. City of Lowell.*

This is a petition to the Superior Court for a jury to assess the damages alleged to have been sustained by the petitioner in the taking of land and for other damage to his property resulting from the change of the grade crossing at Pawtucket Street.

The City of Lowell will have to pay in this case the amount recovered by the petitioner in the first instance, but will be reimbursed under the act in relation to grade crossings above sited, by the Boston & Maine Railroad and the Commonwealth ninety per cent. thereof.

The petition was filled in Court March 30, 1896, and an order of notice issued thereon returnable the first Monday of June, 1896. No hearing has yet been had.

1281. *Daniel Gage vs. City of Lowell.*

1282. *Daniel Gage vs. City of Lowell.*

These actions are also petitions for damages alleged to have been sustained by the plaintiff in the one case as owner and in the other as lessee of certain lands

taken or injured by the alteration of the grade crossing at Pawtucket Street. The petitions were filed in Court April 15th, and an order of notice issued in each case on the first Monday of June, 1896. No hearing has been had in these cases.

In these cases as in the other similar petitions for damages resulting from the alteration of said grade crossings the city will have to pay the damages recovered in the first instance, but will be reimbursed ninety per cent. thereof as stated above.

1283. *Artemas B. Woodworth vs. City of Lowell.*

This case is also a petition for a jury to assess the damages to the petitioner's land caused by the alteration of the grade crossing at Pawtucket Street, and the remarks made in the above cases of Daniel Gage vs. City of Lowell in reference to the payment and apportionment of the damages that may be recovered are applicable to this case.

The petition was filed in Court April 15th and order of notice issued thereon returnable the first Monday of June, 1896.

1446. *Edward S. Howe vs. City of Lowell.*

1448. *George L. Goodale vs. City of Lowell.*

1447. *Joseph M. Wilson et al. vs. City of Lowell.*

1450. *Joseph M. Wilson et al. vs. City of Lowell.*

1449½. *Thomas J. Underwood vs. City of Lowell.*

1449. *Thomas J. Underwood vs. City of Lowell.*

The last six cases are writs of entry brought to recover certain tracts of land which the respective plaintiffs conveyed to the City of Lowell in 1889 and 1890 for the Pawtucket Boulevard.

Each of the deeds contained conditions which are alleged to have been violated by the City. The conditions in each of the deeds are as follows:

"This conveyance is made on the express condition that the grantee shall, within three years from the date hereof, lay out and construct and thereafter forever maintain a public highway over the within described premises at least fifty feet in width having the northerly line of the within described premises as the northerly line of such highway, and also on the express condition that that part of said premises not taken or used for said highway shall be improved, dedicated and forever used by the grantee as and for a Common, Park or Boulevard, and for no other purpose, and that if said grantee shall fail to keep and perform said conditions, or either of them, and in such event this deed will become and be absolutely null and void and all and singular the above described premises and all improvements and betterments thereon shall revert to and reinvest in me, the said grantor, and my heirs and assigns, as fully, completely and effectually as if these presents had not been executed."

It is contended by the plaintiffs that the City of Lowell in establishing its water plant on the boulevard land and extending its pipes therein has violated this condition, and that the land with all the buildings and improvements thereon can be recovered by them under the terms of their respective deeds.

The writs in these actions all bear the date of April 18th, and were entered in Court on the first Monday of June, 1896.

1280. *Lowell Waste Co. vs. City of Lowell.*

This is a petition to the Superior Court for a jury to assess the damages alleged to have been caused to the petitioner's mills, mill-dam, water rights and privileges by the driven well plant located near the City Poor Farm.

It is alleged that by the sinking of the wells and taking of the water therefrom to supply the city the flow of water in River Meadow Brook has been diminished, and the petitioner's water power greatly impaired.

The petition was filed in Court April 15th, and an

order of notice issued thereon returnable on the first Monday of June, 1896.

1593. *Middlesex Co. vs. City of Lowell.*

This is a petition for the assessment of damages alleged to have been suffered by the petitioner in consequence of the location of the driven well plant near the Poor Farm.

It is claimed that the drawing of the water into the driven wells and its consumption by the city diminishes the flow of water in River Meadow Brook, which is tributary to the Concord River, and that thereby the petitioner's mill and water rights on the Concord River have been impaired. The petition was filed in Court July 1, 1896.

1511. *Joseph B. Varnum vs. City of Lowell.*

This is an action of contract brought to recover the sum of $1,465.03, with interest thereon from August 1, 1893. This sum is alleged to be due to the plaintiff for work done and materials furnished in the finishing of the Memorial Building.

The writ is dated June 3, 1896, and was entered in Court on the first Monday of July, 1896.

1597. *Catherine Rodgers vs. City of Lowell.*

This is an action of tort for personal injuries alleged to have been received by the plaintiff by reason of a defect in the sidewalk on the southerly side of Lakeview Avenue about thirty feet from the corner of Bridge Street. The defect alleged consisted of an accumulation of snow and ice.

The writ is dated June 4, 1896, and was entered in the Superior Court on the first Monday of July, 1896.

1596. *John Doherty vs. City of Lowell.*

This is an action of tort for personal injuries alleged to have been received by the plaintiff on December 11, 1894, by a fall on the sidewalk near No. 62 Sixth Street.

The cause of the injury alleged was a rough, hubbly and uneven accumulation of snow and ice.

The writ bears date of June 4, 1896, and was entered in the Superior Court on the first Monday of July, 1896.

1651. *Margaret Lee vs. City of Lowell.*

This is an action of tort for personal injuries alleged to have been received by the plaintiff on February 19, 1896, by a fall caused by a defect in the sidewalk on the southerly side of Market Street, near the corner of Adams.

The alleged defect is a rough, uneven and slippery accumulation of snow and ice.

The writ bears the date of June 16th, and was entered in the Superior Court the first Monday of August, 1896.

1599. *Robert H. Mulno vs. City of Lowell.*

This is a petition for a jury to assess the damages alleged to have been caused to the land of the plaintiff by reason of the change of the grade crossing at Lawrence Street.

The petition was filed in the Superior Court August 1, 1896, and an order of notice issued returnable the first Monday of September, 1896.

1600. *Benjamin Scholefield et al. vs. City of Lowell.*

This is a petition for a jury to assess the damages alleged to have been caused to the plaintiff by reason of the alteration in the grade crossing on Lawrence Street.

The petition was filed in the Superior Court August 1, 1896, and an order of notice issued thereon returnable the first Monday of September, 1896.

1832. *P. E. Beaudette vs. City of Lowell.*

This is an action of tort for personal injuries and damage to a horse and carriage alleged to have been received May 29, 1896, and to have been occasioned by a defect in the street called Varnum Avenue, which defect consisted of an iron hydrant which is alleged to

have been located within the wrought and traveled part of said avenue, in front of the house of one Atkinson C. Varnum.

The writ is dated the 26th day of September, 1896, and returnable to the Superior Court on the first Monday of November, 1896.

1761. *Margaret Ford vs. Henry Quinn et al.*

1858. *Lawrence Ford vs. George R. Davis et al.*

These are actions of tort brought against certain officers of the Police Force for an illegal arrest and false imprisonment. Both cases grew out of the same arrest and are practically for the same cause of action.

The writ is dated in the first case the 29th day of August, 1896, and was entered in the Superior Court on the first Monday of October, and in the second case the writ is dated the 7th day of October and was entered in the Superior Court on the first Monday of November, 1896.

How far the duty of the City Solicitor requires him to go in the defence of actions like these is, perhaps, somewhat uncertain. Under the Ordinances he is required to defend "all actions or suits against said city or its officers in their official capacity, wherein the rights, estate, privileges, ordinances or acts of said city, or breach of any ordinance, may be brought in question."

I do not think they come properly within the line of duty of the incumbent of this office, but I find upon inquiry that the practice for several years past has been for the City Solicitor to defend such suits, and I have conformed to the practice, though insisting that any expenses paid by us in conducting such defence should be reimbursed by the parties directly interested.

1930. *Albion M. Spaulding vs. City of Lowell.*

This is an action of tort for personal injuries alleged to have been received by the plaintiff on February 14, 1896, by a fall on the sidewalk on the northerly side of

Marshall Street, by reason of a defect in said sidewalk.

The defect consisted of an accumulation of ice and snow which is alleged to have been "rough, uneven, cuppy and full of holes."

The writ is dated October 15, 1896, and was returnable to the Superior Court on the first Monday of December, 1896.

6884. *John H. Costello vs. Peter Curran.*

This was an action of tort brought against a police officer of Lowell for an alleged trespass and unlawful entry into the plaintiff's dwelling house.

The writ was dated February 24, 1896, and was entered in the Superior Court on the first Monday of April, 1896. The action was tried before a jury at the September sitting and resulted in a verdict for the defendant.

2053. *Walter R. Brown vs. City of Lowell.*

This is a petition for a jury to assess the damages alleged to have been sustained by the plaintiff by the taking of a strip of land containing about 766 square feet, for the purpose of widening Foster Street.

The petition was entered in Court January 1, 1897, and an order of notice issued thereon returnable on the first Monday of February, 1897.

2054. *Martha A. Bagley vs. City of Lowell.*

This is a petition for a jury to assess the damages alleged to have been sustained by the plaintiff by the taking of a strip of land 10 feet wide and 106 feet in length on the easterly side of Foster Street for the widening of said street.

The petition was entered in the Superior Court January 1, 1897, and an order of notice issued thereon returnable the first Monday of February, 1897.

2336. *Sarah Walmsley vs. City of Lowell.*

This is an action of tort for personal injuries received by the plaintiff on March 20, 1896, while traveling on the easterly side of Claire Street.

The alleged cause of the injury is an "accumulation of ice, earth and stones upon the traveled way, and also no light being displayed."

The writ is dated January 1, 1897, and returnable to the Superior Court on the first Monday of February, 1897.

36. *William H. Anderson et al. vs. City of Lowell.*

This is an action of contract brought by the plaintiff to recover back the sum of $242.15, being the amount of a water bill charged to the former owners of certain premises of which the plaintiffs allege that they are now the owners.

The Standard Worsted Co. was the owner or occupant of the premises at the time the bill for the use of the water was contracted, and said company having failed to pay the same the water was shut off from the premises. Afterwards when the plaintiffs acquired the property they requested the city to turn on the water and offered to pay for the water used after they became the owners.

This the Water Board declined to do unless the old bill was paid. The plaintiffs paid the same under protest filed with the City Treasurer and bring this action to recover the same.

The writ was dated December 15, 1896, and returnable to the Police Court of Lowell on the fourth Saturday of January, 1897. The decision of this case will settle an interesting question of law and one that is of a good deal of importance to the city.

208. *Hugh McCormick vs. Albert Pinder et al.*

This is an action of tort brought against the Superintendent of the Poor Farm and his assistant to recover

damages alleged to have been sustained by the plaintiff who was an inmate of the workhouse at said City Farm, serving a sentence therein imposed by the Police Court of Lowell for drunkenness.

The plaintiff was at work in the loft of the barn at said farm with other persons, and fell through a scuttle to the barn floor below, receiving severe injuries. The plaintiff alleges that said scuttle was negligently left open by the defendants.

This writ was dated the seventeenth day of December, 1896, and was returnable the first Monday of January, 1897.

In the following pending cases no change has been made since my last report:

916. *Mary O'Connel vs. City of Lowell.*
917. *Abbe A. Moore vs. City of Lowell.*
1061. *Daniel Cosgrove vs. City of Lowell.*
80. *Joseph Small vs. City of Lowell.*
131. *John Manning vs. City of Lowell.*
129. *William Manning vs. City of Lowell.*
181. *Warren Aldrich et al. vs. City of Lowell.*
182. *Henry L. Tibbetts vs. City of Lowell.*
436. *Patrick Lynch vs. City of Lowell.*
372½. *D. Maria Parker vs. City of Lowell.*
270. *James Leonard vs. City of Lowell.*
23. (Equity) *Middlesex Co. vs. City of Lowell.*
117. *D. Moody Prescott vs. City of Lowell.*
1140. *William E. Livingston vs. City of Lowell.*
330. *Samuel P. Pike vs. City of Lowell.*
3032. *Bragg Mfg. Co. vs City of Lowell.*

470. *Municipal Signal Co. vs. City of Lowell.*

John M. Pevey et al. vs. City of Lowell.

772. *John H. Harrington, Collector of Taxes, vs. J. W. C. Pickering. Tr.*

773. *John H Harrington, Collector of Taxes, vs. Charles J. Glidden, Tr.*

774. *John H. Harrington, Collector of Taxes, vs. Charles E. Adams, Tr.*

775. *John H. Harrington, Collector of Taxes, vs. Francis Jewett, Tr.*

776. *John H. Harrington, Collector of Taxes, vs. James W. Bennett, Tr.*

777. *John H. Harrington, Collector of Taxes vs. Levi Sprague, Tr.*

778. *John H. Harrington, Collector of Taxes, vs. Asa C. Russell, Tr.*

The last seven cases are awaiting the result of the certiorari proceedings in the case of Charles E. Adams vs. City of Lowell. (No. 67)

352. *City of Lowell vs. Middlesex North Agricultural Society.*

1461. *Timothy O'Brien vs. City of Lowell.*

It will be noticed that two of the cases above cited are for damages resulting from the alteration of the grade crossing on Lawrence Street.

The greatest sufferer by that alteration was Honorable John F. Frye, a considerable tract of land owned by him having been taken by the decree of the Commissioners for the purpose of effecting such alteration.

Judge Frye was anxious to have his damages settled without litigation, and after conferences with the City Engineer, who was well acquainted with the value of

the land, and the other parties interested, namely: The Boston & Maine Railroad Co., and the Attorney General, representing the Commonwealth, an amicable settlement was made which was agreed to by all parties, by the payment to said Frye of the sum of $800 by the city, of which sum the Boston & Maine Railroad are required under the law in relation to the alteration of grade crossings to repay to the city sixty-five per cent. and the Commonwealth twenty-five per cent. The actual expense to the city, therefore, in the transaction is about $80.

MISCELLANEOUS BUSINESS.

In pursuance of an order of the Board of Aldermen approved October 21st last, I presented to the County Commissioners a petition to the Mayor and Aldermen of the City of Lowell, to lay out Lundberg Street over and across the Boston & Maine Railroad in pursuance of Section 125 of Chapter 112 of the Public Statutes. The petition was granted after hearings before the Commissioners.

Sometime during the summer of 1896 a petition was presented to the City Council for the laying out, widening and straightening of Fowler Road from its junction with Varnum Avenue nortwesterly to the land of Henry G. Cushing.

While this petition was pending a question arose as to whether said Fowler Road was an accepted street which the city was bound to take care of, and at the request of the City Engineer for my opinion I examined the records of the town of Dracut, and found that prior to the annexation of

that portion of Dracut, which includes this road, to the City of Lowell said town, in 1862, had voted to accept said road as a town road, and that under the act of annexation the city was required to keep the same in repair.

At the request of the Water Board I examined the records of the various conveyances and processes by which the City of Lowell acquired certain lands and easements in land along the line of the brick conduit and tunnel extending from the gate house on the northerly side of the Merrimack River in Pawtucketville, easterly to the point where said tunnel passes under the road leading from Pawtucket Bridge to the Navy Yard, with a view to ascertaining the rights which the city holds in the several tracts of land through which said conduit and tunnel pass.

The investigation of this matter occupied considerable time and the conclusions which I arrived at were communicated to the Water Board October 23, 1896.

By act of the legislature, approved March 13, 1889, a certain portion of the lower free landing in the rear of Market House was discontinued, the act to take effect when assented to by the City Council of the City of Lowell.

The fee in the land reserved for this free landing was in the Proprietors of the Locks and Canals on Merrimack River. During the past year a proposition was made by said Proprietors that if the city would consent to said act of the legisla-

ture, thereby discontinuing a portion of the free landing, the Locks and Canals Co. would cause to be released and discharged the conditions and restrictions which were contained in a deed of a tract of land in the rear of the Market House which the city acquired from the Lyman heirs.

This lot was originally in the possession of said Proprietors and the restrictions above referred to were contained in the deed of said proprietors to George W. Lyman. The city has been put to some inconvenience in consequence of said restrictions, and the plan of the police stable was obliged to be changed to some extent on that account.

The offer of the said Locks and Canals Co. was accepted and the act was assented to by the City Council October 21, 1896, and by an indenture dated the 31st day of October, 1896, said Proprietors and the heirs of George W. Lyman released said restrictions.

Of all the claims against the city referred to the Committee on Claims during the past year on which hearings were given, but three were allowed and paid by the committee.

The committee, under its able chairman, Alderman Crowley, construed its authority as extending only to cases in which the claimant at the hearing produced evidence which would warrant the committee in finding that he had a legal right to recover from the city, and all other claimants were given leave to withdraw.

This I believe to be the true construction of

the authority of the committee, and that there has never been any legal authority under which this committee had the right to bestow charity on persons, however deserving, under the guise and pretense of a claim for damages.

During the past year the city has acquired eleven lots of land from separate owners for school purposes; six lots for the rifle range in Dracut; one lot for the Water Board; one lot for the enlargement of the City Farm and one lot of land to be used as a sand-bank; in all twenty lots. The deeds of these lots of land were made in this office, and the examination of the titles occupied considerable time.

In my opinion in all cases where land is acquired by purchase for any purpose whatever, the title should be carefully examined before any buildings or structures are placed thereon or the land is actually occupied by the city.

In some instances in the past costly buildings have been erected upon land to which the city had no shadow of title or right except an indefinite oral agreement with the owner to sell the said land at a certain price.

This is wholly unbusinesslike and may, if the practice is continued, result in serious loss to the city.

A large portion of the time of the Solicitor during the past year has been occupied in investigating and answering, orally and in writing,

questions proposed by the different boards, officers and departments of the city government.

Written opinions have been given to the Board of Health, Superintendent of Streets, Superintendent of Lands and Buildings, the Mayor, the Water Board, Overseers of the Poor, Board of Police, State Aid Committee, City Treasurer, Committee on Accounts, City Auditor, Sinking Fund Commissioners and the City Engineer.

To anyone who has the least knowledge of such matters who examines the large list of pending cases contained in this report and considers the number and variety of questions of law and fact that must be solved in order to properly present them to the court, it must be obvious that the time of the Solicitor during the coming year must be largely occupied in the work of preparing and trying cases.

This work requires close attention and application and cannot be done successfully and properly in the midst of constant interruptions. It is probable, therefore, that I shall be compelled to put aside many of the questions that are presented to me and to refrain from giving opinions except upon matters of considerable importance until I have disposed of at least a portion of the cases which now incumber the docket of this office.

Respectfully submitted,

FRANCIS W. QUA,

City Solicitor.

ANNUAL REPORT

OF THE

SUPERINTENDENT OF CITY SCALES

AND

MEASURER OF WOOD AND BARK

OF THE

CITY OF LOWELL,

FOR THE YEAR 1896.

LOWELL, MASS.:
LOWELL SUN PRINT: SUN BUILDING
1897.

REPORT.

To the Honorable Mayor and Board of Aldermen:

In compliance with an ordinance requiring the Superintendent of City Scales to report annually, I have the honor to submit the following report for the year 1896.

I have during the year weighed:

			Tons.	Pounds.
648	loads of	Hay	725	1215
177	"	Oats	216	1095
38	"	Coal	82	1675
71	"	Straw	59	10
18	"	Paper	16	1920
8	"	Oat feed	12	1280
3	"	Ice	8	785
10	"	Corn	6	305
1	"	Beans	6	90
4	"	Oats and Meal	5	1930
7	"	Wheat and Meal	5	1320
2	"	Iron	5	945
6	"	Meal	4	265

			Tons.	Pounds.
2	"	Carrots	3	1315
3	"	Furniture	2	1660
2	"	Corn and Meal	1	950
7	"	Shorts	2	80
2	"	Potatoes	1	1210
1	"	Sand	1	1080
1	"	Gravel	1	875
1	"	Concentrated feed	1	550
1	"	Concentrated feed and meal	1	445
2	"	Cabbages	1	75
2	"	Pop Corn		1625
1	"	Meal and Shorts		1560
1	"	Salt and Plaster		1445
1	"	Corn and Oats		975
1	"	Peas		870
1	"	Empty Cases		775
2	"	Beef		620
2	"	Grain		560
1	"	Zinc		387
1	"	Salt		365
1	"	Copper		190
55		Horses		
8		Wagons		

Received for fees for weighing, $145.38.

I have during the year measured:

			Cords.	Feet.
2445	loads of	Wood	3753	2
69	"	Manure	59	4 1-2
1	load of	Wool waste	1	1 1-2
1		Wagon		4

Received for fees for measuring, $124.25.

GEORGE F. NOONAN.

Supt. of City Scales and Measurer.

ANNUAL REPORT

OF THE

SEALER OF WEIGHTS AND MEASURES

OF THE

CITY OF LOWELL,

FOR THE YEAR 1896.

LOWELL, MASS.:
LOWELL SUN PRINT: SUN BUILDING:
1897.

REPORT.

OFFICE OF SEALER OF WEIGHTS AND MEASURES,
DEC. 31, 1896.

To the Honorable the Mayor and Board of Aldermen.

In compliance with the City Ordinances I herewith respectfully submit the following report for the year ending Dec. 31, 1896. I have inspected, adjusted and sealed scales, weights and measures for which I have received fees as follows:

45	Railroad hay and coal scales, at $1.00	$ 45 00
251	Platform scales, at 50 cents	125 50
35	Dormant scales, at 50 cents	17 50
124	Small platform scales, at 25 cents	31 00
45	Butchers scales, at 3 cents	1 35
175	Spring ballances, at 3 cents	5 25
177	Counter balances, at 3 cents	5 31
65	Trip scales, at 3 cents	1 95
3070	Weights, at 3 cents	92 10
95	Wet and dry measures, at 3 cents	2 85
		$327 81
	Paid for Trucking	44 50
	Paid City Treasurer	$283 31

I have also sealed the following with no fee:

3 Hay scales and 12 platform scales.
3 Counter platform and 10 counter ballances.
4 Trip scales, 98 weights and 44 wet and dry measures.

I have also condemned 5 platform scales, 2 small platform and 3 butchers scales, 6 counter and 8 spring balances and 18 weights. I have also condemned 3 self-measuring oil pumps.

JAMES R. FULTON.
City Sealer.

LIST OF JURORS

FOR THE

CITY OF LOWELL,

FOR THE YEAR 1897.

LOWELL, MASS.:
PRINTED BY THOMPSON & HILL, THE VOX POPULI PRESS.
1896.

IN BOARD OF ALDERMEN, December 1, 1896.

List accepted and adopted.

GIRARD P. DADMAN, *City Clerk.*

CITY CLERK'S OFFICE, December 22, 1896.

I hereby certify that the within List of Jurors for the year 1897 has been posted ten days, as required by law, and is this day sent to the Common Council.

Attest,

GIRARD P. DADMAN, *City Clerk.*

IN COMMON COUNCIL, December 22, 1896.

List amended by the addition of names reported by a special committee and, as amended, adopted and declared to be the Jury List of the City of Lowell for the year 1897.

FRANK N. OWEN, *Clerk.*

Ward One.

A

Adams, Edward E	84 Middlesex st	music teacher
Adams, Joseph J.	8 Third st	carpenter

B

Bailey, Frederick	142 First st	druggist
Barnard, Virgil G.	32 Second st	bookkeeper
Barry, James W	447 Worthen st	clerk
Bartlett, Sylvanus	181 Summer st	manufacturer
Bell, Frank A	366 Worthen st	machinist
Bell, George E	434 Worthen st	overseer
Bixby, Albert J	397 Dutton st	overseer L M S
Bixby, Newton	63 Bridge st	operative
Boardman, William W	11, 12 Mer'k corp	boarding house
Bosca, Anadore B	15 Prescott corp	overseer
Boyle, John	23 Read st	gentleman
Brackett, Albert W	71 Middlesex st	overseer
Brock, Greenlief C	118 First street	druggist
Brown, Alden P	324 Worthen st	machinist
Burbank, Willis P	207 Appleton st	insurance
Burbeck, Frederick A	20 Middlesex st	clerk
Burnham, Charles M	53 John st	operative
Butler, Thomas F	5 Goward's ct	moulder

C

Cady, George L	163 Summer st	manufacturer
Carle, Asa B	40 Second st	carpenter
Clark, Owen	36 Prescott st	bartender
Cleworth, Walter	29 Anne st	printer
Clough, Albert	56½ Mer'k corp	operative
Coffey, Michael F	194 Middlesex st	gentleman
Conway, Anthony A	109 Merrimack st	cartridge shop
Costello, James	42 Kirk st	stove & plumber

D

Dana, Clarence W	459 Dutton st	machinist
Dana, William H	331 Dutton st	machinist
Dennett, Alvanus M	57 Fourth st	pawnbroker
Dennis, Edward P	Merrimac house	sup't
Dickerman, George M	159 Merrimack st	machinist
Dickey, Thomas L	157 Summer st	insurance
Dozois, Hilaire	363 Dutton st	machinist
Durrell, Calvin F	159 Merrimack st	machinist

F

Farrington, Charles E	20 Webster st	overseer
Fox, Warren	209 Summer st	gentleman
Frost, Charles H	26 Central st	dealer
Frye, George H	36 Second st	inspector sewers

G

Goward, Edward T	274 Appleton st	gentleman
Gregg, George V	264 Appleton st	tailor

H

Holgate, Samuel	6 Hamilton corp	second hand
Holland, James W	57 French st	overseer
Hood, Charles H	451 Dutton st	machinist
Howe, Augustus J	91 Fourth st	insurance
Howe, Walter H	315 Summer st	dealer
Hunt, James	18 Third st	overseer
Hunton, Jonathan G	201 Appleton st	foreman

J

Jennison, George H	45 Kirk st	dentist
Jewett, James L	49 French st	overseer
Jones, Albert P	97 French st	slasher

K

Kelley, John A	58 West Third st	painter
Keyes, Julian B	102 Third st	teller

M

Melvin, Charles F	250 Middlesex st	laborer
Morse, John W	3 Lowell corp	second hand
Morse, Willis E	70 Third st	electrician
Murphy, James	159 Merrimack st	real estate

O

O'Brien, John J	399 Worthen st	machinist
Ort, John J	385 Worthen st	blacksmith
Osterhout, Fred S	159 Middlesex st	clerk
Owen, Frank N	84 First st	reporter
Owens, Patrick	29 Front st	machinist

P

Parker, Charles A	13 Second st	painter
Peabody, Baldwin T	St. Charles Hotel	dealer
Plimpton, Edwin H C	6 Favor st	broker
Plunkett, Joseph	203 Dutton st	druggist

Q

Quinn, John	38 Merrimack corp	laborer

R

Rawcliffe, Benjamin	18 Hamilton corp	engraver
Reed, Edward E	53 French st	overseer
Richardson, John H	76 French st	grinder
Roach, Andrew F	196 Worthen st	liquor dealer
Rodliff, William A	8 Hamilton corp	machinist
Rogers, Edward W	29 Webster st	insurance agent

S

Saunders, Francis E	119 Middlesex st	overseer
Scott, James	Merrimac house	gentleman
Scott, Frank	59 French st	overseer
Sherlock, Peter B	118 Merrimack st	section hand
Silver, Edward H	74 Thorndike st	machinist
Smith, James	69 Third st	gentleman
Stackpole, Charles H	145 Merrimack st	janitor
Stearns, Charles A	243 Appleton st	clerk

T

Titus, Afton G	145 Merrimack st	railroad
Traversy, William	22 Lee st	carpenter
Tryder, George H	42 West Third st	stable keeper
Turner, Herbert E	50 Lee st	operative

V

Varnum, Leavitt R J	Merrimac house	real estate

W

Warren, Oscar E	224 Worthen st	operative
Watson, George B	30 First st	clerk
Weymouth, Francis	169 Middlesex st	machinist
Woods, Charles L	10 John st	physician
Woodies, William H	381 Dutton st	overseer
Wright, Atwill F	280 Appleton st	dealer
Wright, Walter G	280 Appleton st	draftsman
Wyman, Moses	31 Hamilton corp	boarding house

Y

Young, Harold L	253 Appleton st	clerk

Ward Two.

B

Baldwin, John D S	534 Merrimack st	moulder
Bowen, George F	68 Merrimack corp	overseer
Bowers, Frank	45 Marion st	painter
Brennan, Thomas	641 Market st	machinist
Butler, Frank E	130½ Colburn st	pattern maker

C

Callahan, Joseph H	152 Fenwick st	clerk
Cassidy, Owen	54 Marion st	machinist
Chadbourne, Edward W	123 Prince st	gas fitter
Chase, Ezra A	98 Suffolk st	painter
Clark, Frank	139 Prince st	machinist
Clay, Henry	334 Moody st	foreman
Connors, Thomas	11 Adams st	laborer
Connors, Thomas	4 Franklin sq	laborer
Coleman, Patrick	121 Merrimack corp	second hand
Crowley, Patrick H	38 Suffolk st	laborer
Cunningham, Anthony	15 Cross street	laborer
Curry, James	105 Tremont st	steam fitter

D

Daily, William J	407 Adams st	machinist
Danahy, John J	347 Market st	mule-spinner
Dextra, Joseph	534 Merrimack st	barber
Doherty, James F	146 Adams st	plumber
Donahoe, Jeremiah	1 Lagrange st	machinist
Doyle, Stephen	635 Market st	city laborer
Dunn, Edward F	304 Adams st	clerk
Dunn, Peter J	239 Adams st	clerk

F

Fallon, Frank J	11 Little st	machinist
Farrell, John J	624 Market st	machinist
Finnegan, James W	122 Merrimack corp	overseer

F

Fisher, John J	236 Broadway	machinist
Folsom, Fred P	154 Tilden st	painter

G

Grady, John J	492 Market st	laborer
Griffin, John	161 Merrimack corp	laborer

H

Hannifin, Maurice L	157 Merrimack corp	operative
Hebert, Samuel P	23 Adams st	grocer
Holden, John E	447 Adams st	operative
Howe, James E	46 Suffolk st	laborer
Hunt, Leonard D	174 Tremont st	overseer

J

Johnson, Michael J	328 Suffolk st	musician

K

Kane, Patrick	13 Lagrange st	machinist
Kennedy, James J	31 Marion st	barber

L

Lynch, Thomas	36 Common st	laborer

M

Mahoney, Thomas	139 Merrimack corp	boarding master
Maxwell, Edward	40 Lewis st	slasher
McCann, James	310 Adams st	laborer
Meade, John F	1 Clark st	painter
Meade, William F	219 Adams st	laborer
Meade, William V	1 Clark st	clerk
Mitchell, Charles F	81 Dummer st	clerk
Mooney, Edward	38 Suffolk st	laborer
Mulligan, Patrick	250 Suffolk st	machinist
Mulligan, Thomas J	148 Colburn st	reporter
Murray, Bartholomew F	394 Andrews st	printer

O

O'Hearn, Cornelius	566 Market st	grocer
O'Neil, David	201 Broadway	machinist
O'Rourke, Joseph	645 Market st	teamster

P

Pendergast, John H	95 Dummer st	stone cutter
Pepin, William H	540 Merrimack st	dentist
Pratt, William A	64 Merrimack corp	overseer

Q

Quirk, William	185 Adams st	tanner

R

Reardon, Patrick	rear 95 Dummer st	laborer
Redding, Daniel	45 Adams st	grocer
Reynolds, Bernard	84 Common st	barber
Roark, Andrew	455 Market st	blacksmith

S

Smith, James F	216 Broadway	plumber
Smith, James H	657 Merrimack st	clerk
Smith, Philip A	19 Common st	shoe maker
Sullivan, Dennis A	578 Market st	piper
Sullivan, Thomas	11 Little st	laborer

T

Tighe, John	190 Tilden st	operative
Turner, John D	362 Merrimack st	machinist

W

Warren, Jeremiah F	27 Cross st	painter
Whiting, William	128 Colburn st	cooper

Ward Three.

A

Adams, Theodore	203 Westford st	janitor
Allen, Thomas O	947 Middlesex st	milk inspector
Ashworth, George L	33 Rock st	file cutter

B

Badger, Frank S	100 Westford st	clerk
Baker, Frederic A	58 Gates st	clerk
Barclay, Oscar R	162 Smith st	carpenter
Barkin, Elias	15 Watson ave	manufacturer
Bateman, Alfred P	136 Smith st	dealer
Bennett, George A	51 Marshall st	roofer
Bennett, James W.	205 Branch st	contractor
Bigelow, Samuel J	479 School st	driver
Booth, Robert	353 Walker st	overseer
Boynton, Fred	61 Branch st	fireman
Bradley, Charles F	62 Gates st	clerk
Brothers, George W	40 Gates st	clerk
Brown, Benjamin G	182 Westford st	contractor
Brown, William H	290 Westford st	grocer
Bugbee, Charles A	46 East Pine st	paper hanger

C

Campbell, James L	83 Queen st	gentleman
Carter, John T	113 Liberty st	cabinet maker
Cheever, David K	27 Leroy st	dealer
Cheney, Edwards	53 Chelmsford st	clerk
Churchill, Addison	74 Dover	gentleman
Clark, George O	16 Branch st	watchman
Clark, Marion S	84 Lane st	cashier
Clay, Milo D	411 School st	painter
Clement, Daniel W	514 School st	dealer
Clifford, Arthur I	30 Howard st	clerk
Clifford, Charles T	99 Westford st	dentist

C

Coburn, Laurens W	204 Cross st	clerk
Cole, Gustavus H	105 Gates st	moulder
Conant, George W	176 Cross st	machinist
Cote, Francois M	139 Cushing st	painter
Crawford, John W	155 Westford st	clerk
Crooker, Abel F	30 Nichols st	painter

D

Daly, Frank W S	47 Marshall st	clerk
Davis, Natt A	80 Howard st	clerk
Dearborn, Charles O	31 Barclay st	clerk
Dickinson, Watson A	184 Branch st	manufacturer
Dobbins, Richard	119 Liberty st	boiler maker
Draper, Henry J	11 Bolton pl	carriage painter

E

Edson, Charles E	57 Royal st	clerk
Elliott, Eugene H	282 Westford st	bookkeeper
Elliot, James G	496 School st	foreman
Emerson, Frank W	81 Smith st	tailor
Estes Fred A	101 Gates st	clerk

F

Finnegan, Peter E	69 Royal st	barber
Fish, Charles T	26 Dover st	agent
Flanders, Charles H	8 Osgood st	gas works
Foster, Benjamin F	8 rear 145 Liberty st	second hand
Furber, George W	58 Grand st	artist

G

Gates, Royal W	73 Gates st	dealer
Gibby, William H	22 Columbus av	shoe cutter
Gilman, Albert I	20 East Pine st	wood turner
Glidden, Charles J	1131 Middlesex st	treasurer
Green, John J	166 Smith st	dealer

H

Hasey, Henry P	19 Osgood st	gentleman
Hicks, Joseph	23 Royal st	clerk
Hill, Edgar M	64 Grand st	reporter
Hilton, George W	232 Wilder st	physician
Holmes, Christopher	88 Royal st	merchant
Horne, Fred	150 Westford st	dealer

J

Jacobs, Herbert M	176 Westford st	carpenter
Jenson, Otto	42 Branch st	moulder
Jockow, George W	895 Middlesex st	carpenter
Johnson, Coolidge R	262 School st	overseer

K

Kew, John J	545 Middlesex st	farmer
Keyes, Henry F	372 Broadway	gentleman
Keyes, Henry J	372 Broadway	teamster
Kilby, John L	7 Westford st	painter
Kilgore, Frank L	42 Columbus ave	clerk
Kilgore, Fred H	249 Branch st	clerk
Kilgore, John M	42 Columbus ave	agent
Killpartrick, William R	21 Leroy st	dealer
King, Gardner W	309 Westford st	gentleman
Knapp, Fred L	153 Westford st	manufacturer
Knapp, Joel	153 Westford st	manufacturer

L

Lacouture, Joseph W	74 Rock st	clerk
Ladd, Henry W	571 School st	carpenter
Libby, Martin V B	331 Walker st	blacksmith
Livingston, Cornelius S	208 Branch st	clerk
Livingston, Ephraim D	287 Westford st	printer

M

Marble, Robert C	79 Rock st	carpenter
McCarthy, Francis B	203 Mt. Vernon st	railroad
McDonald, Joseph A	226 Fletcher st	merchant

M

Meserve, Harry	243 Westford st	express
Miller, George W	75 Howard st	railroad
Mitchell, James E	353 Westford st	broker
Mussey, George L	917 Middlesex st	clock repairer

N

Noble, Charles H	362 Broadway	clerk
Noble, George H	362 Broadway	real estate

P

Parthenais, William A	16 Grand st	dealer
Paul, Edwin J	2 Ware st	printer
Pevey, Franklin S	68 Dover st	iron founder
Pevey, James A	366 Walker st	iron founder
Philbrick, Caleb	389 Walker st	teamster
Powers, Daniel	274 Fletcher st	gas works
Puffer, Stephen B	942 Middlesex st	manufacturer

R

Randlett, Fred M	8 Gates st	dealer
Ranlett, Orrin B 2d	18 Leroy st	clerk
Richards, Edwin W	10 Sawtelle pl	brakeman
Roper, George A	335 Walker st	clerk
Russell, Alonzo L	12 Coral st	agent
Russell, Michael	650 Middlesex st	machinist

S

Sanborn, Edward P	79 Royal st	builder
Sanborn, Walter P	79 Royal st	hack driver
Saxe, Robert G	244 Fletcher st	engineer
Scribner, George A	158 Westford st	machinist
Shattuck, Charles F	142 Cushing st	clerk
Shaw, Ralph H	39 Bellevue st	clerk
Short, Harry W	45 Royal st	foreman

S

Smiley, William H	41 Franklin st	druggist
Smith, James	62 Grove st	mason
Snow, Samuel D	19 Cheney st	painter
Staples, George N	153 Smith st	clerk
Stearns, Frank W	111 Grand st	clerk
St. Martin, Henry N	31 Nichols st	clerk
Stoughton, Willis H	12 Woodbury st	express
Stratton, Frank K	339 Walker st	clergyman
Sullivan, Dennis A	138 Cross st	editor

T

Taylor, George A	62 Rock st	hostler
Taylor, George H	41 Nichols st	stable keeper
Thorne, John, jr	66 Howard st	clerk

V

Varnum, Charles E	75 Smith st	carpenter
Varnum, Joseph B	36 Lane st	carpenter

W

Warren, Charles H	25 Princeton st	dealer
Weaver, Frank L	282 Walker st	roofer
White, Gideon F	78 Gates st	dealer
White, Henry G	131 Grove st	clerk
Wiley, Walter P	15 Barclay st	water works
Williams, Benjamin	35 N Franklin ct	operative
Wilson, Benjamin H	62 Gates st	clerk
Wilson, Leonard	32 Brooks st	city
Wood, George H	176 Branch st	jeweler
Woodies, Fred	74 Gates st	clerk
Wotton, Charles A	26 Loring st	salesman

Y

Young, James A	585 Broadway	machinist

Ward Four.

A

Adams, Abner S	26 Highland st	director
Ashworth, William	80 Kinsman st	designer

B

Bagshaw, Walter H	11 Wilson st	manufacturing
Barney, Fred M	173 Howard st	dealer
Bean, Fred F	48 Walnut st	box maker
Birtwistle, Joseph	19 Richmond av	gentleman
Blessington, John B	206 South st	foreman st. dep't
Blunt, Frederick O	50 Chelmsford st	clerk
Bowen, Wilfred G	10 Runels' ct	clerk
Burns, Miles F	12 Chase st	operative

C

Caddell, Peter	43 Prospect st	carpenter
Cady, Harry F	17 Auburn st	collector
Charters, William A	91 Crosby st	bo'rding ho. k'p'r
Chase, Howard E	120 Chapel st	machinist
Cleary, Daniel	47 Swift st	plasterer
Cleary, James H	59 Swift st	laborer
Cleworth, Edwin	120 Chapel st	manufacturer
Collins, Daniel	39 Lyon st	laborer
Condon, John H	279 Thorndike st	janitor
Connell, Richard J	rear 28 Walnut st	printer
Cooney, Nicholas	850 Central st	engineer
Corbett, Michael	32 Highland st	dealer
Cox, John B	39 Summer st	machinist
Cummiskey, John J	14 Whipple st	watchman
Curley, Thomas	22 Lyon st	laborer
Cushing, George W	Lowell Jail	turnkey

D

Daily, John	159 Chapel st	operative
Donovan, Francis	8 Floyd st	laborer
Driscoll, Jeremiah	834 Central st	operative
Drown, Erwin S	12 Simpson pl	clerk

E

Enwright, Cornelius F.	11 Cedar st	painter

F

Farley, Joseph	517 Lawrence st	barber
Fitzgibbon, Patrick	503 Gorham st	dealer
Flynn, James	12 Cedar st	teamster
Freeman, John	29 Keene st	lighter

G

Gilmore, William	65 Hudson st	clerk
Goodell, Harlan P	14 Highland st	dealer
Goodwin, Chester S	2 Davis sq	finisher
Gorman, James E	412 Gorham st	dealer
Gormley, Edward F	22 Lyon st	dealer
Gormley, John	22 Lyon st	laborer
Gormley, Joseph H	22 Lyon st	clerk
Gray, John J	10 Kinsman st	merchant
Green, John	240 Thorndike st	compositor

H

Heelon, Patrick H	536 Gorham st	stable keeper
Helliwell, Albert	121 So. Highland st	watchman
Higgins, Patrick	872 Central st	machinist
Hill, James E	279 Thorndike st	inspector
Holland, Walter H	32 Pine Hill st	mattress maker
Husband, Thomas H	2 Davis sq. Gorham	switchman

I

Irving, Andrew	4 rear 28 Walnut st	laborer
Irving, William J	4 rear 28 Walnut st	weaver
Irwin, John M	15 Walnut st	dealer

J

Jameson, Charles E	168 Grand st	gentleman
Jeffers, George B	15 Pollard st	clerk

K

Keefe, James	451 Lawrence st	barber
Keegan, Thomas M	45 Crosby st	janitor
Kelley, Henry F	174 Crosby st	machinist
Kelley, Simon	1036 Gorham st	clerk
Kendall, Charles A	339 Gorham st	dealer
Kennedy, Daniel	2 rear 42 Keene st	mattress maker
Knowles, Jefferson A	50 Chelmsford st	gentleman

L

Lynch, Thomas J	77 Whipple st	operative
Lyons, John K	5 rear 35 Summer st	pin maker

M

MacDougal, James	1019 Central st	machinist
Mack, Joseph	13 Burns st	gentleman
Madigan, Michael A	23 Bassett st	laborer
Martin Edward F	543 Gorham st	dealer
Masterson, Joseph	2 Pollard st	operative
McAloon, William	157 Howard st	laborer
McEvoy, Patrick	39 Hudson st	painter
McNally, James R	17 Newhall st	conductor
McNally, James	261 Thorndike st	blacksmith
McNamara, James	193 Crosby st	shuttle maker
Miskella, James F	10 Chase st	clerk
Moloney, Thomas A	44 Whipple st	policeman
Mountford, John	343 Thorndike st	dealer
Murphy, John D	14 Walnut st	operative

N

Nelson, William	8 Basset st	tea dealer
Nute, Orin S	16 Elm st	gentleman

O

O'Connell, John J	61 Newhall st	liquor dealer
O'Connell, Richard	4 rear 28 Walnut st	carpenter
Ogden, John T	rear 1021 Central st	second hand
O'Hare, Frank	13 Kidder st	laborer

P

Preston, Charles R	335 Thorndike st	civil engineer
Poore, Frank A	26 Walnut st	machinist
Puffer, Fred A	62 Highland st	dealer

R

Ramsay, James P	4 Runels' ct. Thorn'ke	switch tender
Richardson, Charles H. Jr	44 Highland st	machinist
Rogers John F	29 Cedar st	undertaker
Runels, Charles	321 Thorndike st	contractor
Reidy, Martin	69 Swift st	laborer

S

Sawyer, John F	17 Prospect st	operative
Shannessy, George W	3 rear 592 Gorham st	wheelwright
Shea, S. John	778 Central st	paper hanger
Smith, Edward W	21 Hudson st	printer
Stanton, John B	23 Newhall st	wool sorter
Stopherd, Albert	29 Basset st	operative

T

Teague, Thomas	19 Burns st	painter
Teel, George M	12 Congress st	clerk
Turner, Eli	110 Howard st	wool sorter
Tyrrell, John E.	483 Lawrence st	dealer

W

Walsh, John F.	5 Watson st	operative
Welch, Arnold S	108 Appleton st	superintendent
Welch, John F.	836 Central st	steam fitter
Welch, William F	34 Cedar st	carpenter
Whelan, John T	124 Chapel st	conductor
Willis, William T	307 Thorndike st	quarryman
Willman, Clarence T	8 Hale st	weaver

Ward Five.

B

Brigham, Charles W	277 High st	tannery

C

Carroll, James	8 Rogers st	laborer
Carson, George	Middlesex yard	watchman
Clarke, James	440 Central st	clerk
Clune, Peter A	571 Central st	barber
Costello, James E	224 Lawrence st	steam fitter
Coughlin, Jeremiah	359 Concord st	gardner
Cox, Simon	71 Church st	shoemaker
Curtis, Charles E	433 Central st	machinist

D

Delaney, William B	73 Lawrence st	tailor
Devine, Philip	61 Chapel st	moulder
Doherty, John J	20 Mill st	mattress maker
Donahoe, Dennis	16 Merrill st	laborer
Douglass, Harry P	35 Hurd st	overseer
Durant, Charles W	74 Chapel st	jeweler
Dugan, Cornelius E	153 Charles st	clerk
Dwyer, William E	371 Central st	barber

E

Edgell, Fred N	117 Andover st	collector

F

Finnerty, Francis	174 Warren ct	moulder
Flynn, Patrick	141 Lawrence st	L. & S. R. R.
Flynn, Michael	208 Charles st	justice of peace
Frost, Benjamin W	26 Tyler st	wool sorter

G

Ginty, Philip	64 Gorham st	slater
Gray, Harry	75 Chapel st	dealer
Green, George	9 Clark's ct	boltmaker

H

Harrigan, William H	444 Central st	clerk
Hapgood, Edgar	221 High st	manufacturer
Hull, George S	583 Central st	manufacturer

J

Johnson, Thomas	345 Central st	weaver
Johnson. William J	168 Charles st	milliner
Joy, John M	12 Tyler st	cigarmaker

K

Kane, Patrick F	37 Elm st	dealer
Kane, John	14 Mill st	loomfixer
Kane, Thomas	20 Mill st	wool sorter
King, Thomas	203 Lawrence st	machinist

L

Leblanc, Alfred	67 Davidson st	grocer

M

Magee, John J.	359 Lawrence st	grocer
Martin, William F	26 North st	tailor
McCarthy, Michael F	7 Richmond st	barber
McGlinchy, Patrick	96 William st	loomfixer
McMullen, Michael	20 Charles st	laborer
McQuade, John	24 Mill st	machinist
McVey, Daniel F	194 Gorham st	plumber
Miles, Waldo F	318 Central st	clerk
Morris, William	27 Warren st	painter
Murphy, Dennis	33 Tyler st	trader

O

O'Brien, Daniel J	151 Concord st	merchant
O'Brien, John J	111 High st	wool sorter
O'Connor, John J	29 Wamesit st	lawyer
O'Connnor, Michael J	82 Gorham st	stone-cutter
O'Hare, James	134 Gorham st	plumber
O'Shea, Michael	16 Pleasant st	machinist
Owen, George E	221 High st	accountant

P

Palm, John N	365 Lawrence st	laborer
Pinder, Albert L	400 Central st	carpenter
Peppard, Patrick S	43 Wamesit st	loomfixer
Preston, Benjamin	162 Church st	laborer

R

Riley, Charles	1 Wall st	hairdresser
Rock, George N	49 East Merrk st	second hand
Rushworth, Benjamin	239 Lawrence st	gentleman

S

Sargent, Frederick M	103 Andover st	express agent
Soroghan, Nicholas	33 Pleasant st	tailor
Spalding, Edward F	39 Tyler st	gentleman
Spalding, William B	1 Centre st	real estate
Sprague, John M	76 Chapel st	gentleman
Stearns, Frank E	373 Central st	bookkeeper
Sullivan, Frank J	45 Wamesit st	clerk

T

Tansey, John F	30 Pleasant st	coachman
Thurston, Charles W	18 Hurd st	teamster
Trainer, Michael	133 Concord st	gentleman

U

Underwood, George H	39 Wamesit st	spinner

V

Viney, William B	22 Tyler st	clerk

W

Walker, Charles H	58 Tyler st	superintendent
Watson, David R	450 Central st	student
Wheelock, Andrew C	465 Central st	real estate
Whitehead, James	22 Wamesit st	clerk

Ward Six.

A

Abbott, John W	18 Fremont st	tinsmith
Adams, Rufus O	46 Twelfth st	nurse
Arnold, William A	75 Fremont st	clerk
Atkinson, Busby	17 Shedd st	tea dealer
Austin, Charles H	17 Hampshire st	carpenter

B

Baker, Frederick W	156 Sixth st	machinist
Beals, George M	511 Bridge st	harness maker
Bill, Freeman M	30 West Sixth st	grocer
Bishop, Herbert L	28 May st	clerk
Blood, John C	13 Durant st	railroad
Boisvert, Charles H	94 Lilley ave	baker
Boyers, John	12 Albion st	second-hand
Boyle, Thomas H	591 Bridge st	liquor dealer
Brigham, Oramel A	182 Third st	railroad
Brown, William D	9 Simpson st	real estate
Brown, Daniel A	13 Methuen st	notary public
Burtt, Arthur M	142 Third st	architect
Burrill, John F	612 Beacon st	clerk

C

Churchill, Ludlow D	214 Third st	clerk
Clark, George A	11 McGovern's ct	laborer
Cluer, Arthur H	3 Wachusett st	harness maker
Cobb, Thaddeus S	47 Fifth st	dealer
Coburn, Arthur C	21 Durant st	clerk
Coburn, Frank	47 Methuen st	insurance agent
Coburn, Harry W	56 Sixth st	dentist
Coolidge, Franklin S	148 Methuen st	real estate
Collins, James Henry	417 Bridge st	restaurant
Coughlin, James	16 Webster av	gardener

D

Daggett, Charles	19 Fifth st	jeweler
Dam, Charles A	80 Fifth st	overseer
Devoll, Andrew J	53 Thirteenth st	salesman
Drewett, Sidney	72 Twelfth st	trunks

E

Eames, Melvin	155 West Sixth st	pattern maker
Eaton, Charles W	108 Myrtle st	broker
Eaton, Daniel A	107 Myrtle st	insurance clerk
Emerson, Moses W	77 Beech st	photographer
Evans, George C	50 Sixth st	hay and grain

F

Fay, Joseph F	W S Mt Pleasant st	farmer
Fels, August	989 Lakeview ave	agent
Fleming, John T	31 Myrtle st	clerk
Fleming, Samuel	36 Hildreth st	engineer
Foster, Samuel W	21 Sixth st	machinist
Frappier, Edward	208 Hildreth st	wire-worker
Fulton, Robert S	131 Jewett st	clerk

G

Garmon, Joseph A	7 Wachusett st	J C Ayer Co
Gerry, Edgar A	27 Humphrey st	express mess
Gilman, Walter H	28 Fourth st	clerk
Grover, Herbert E	62 Fifth st	barber

H

Hadley, James A	204 Tenth st	real estate
Hansbury, James W	405 Lakeview ave	machinist
Hall, Leroy C	23 June st	commission mer'
Hall, Levi L	201 Hildreth st	dealer
Hallowell, Charles E	743 Bridge st	gentleman
Henderson, Alden W	73 Fifth st	musician
Henry, John B	68 Fifth st	clerk

J

Janvrin, Joseph A	20 West Ninth st	sew'g mach. a'g't

K

Keith, Austin	11 Myrtle st	druggist
Kenneson, William T	74 Billings st	real estate
Kilbride, Patrick	14 Stanley st	laborer
Kingsbury, Alphens R	35 Boynton st	blacksmith
Kittredge, Abner L	101 Myrtle st	painter

L

Liddell, Andrew	25 Twelfth st	collector

M

Manning, George H	23 West Fifth st	furniture
Marston, George H	775 Bridge st	real estate
McArdell, Edward	508 Lakeview ave	machinist
McKissock, James F	509 Beacon st	fireman
Mead, Asa W	3 Wachusett st	machinist
Merrill, Frank M	156 Tenth st	dealer
Metcalf, George E	93 Vernon st	insurance
Miller, Henry	60 Sixth st	grocer
Miller, William	42 Seventh st	grocer
Moir, Alexander	172 West Sixth st	gentleman
Monahan, Patrick R	16 Albion st	laborer
Morse, Clarence S	1 Puffer ave	painter
Morse, Franklin G	10 Webster ave	gardener
Munn, Francis D	603 Bridge st	grocer
Myers, William J G	36 Eighteenth st	reporter

P

Page, Dudley L	53 Humphrey st	confectioner
Palmer, George B	29 Eighteenth st	police
Palmer, Samuel B	394 Beacon st	trader
Pendergast, Andrew L	33 Eighteenth st	saloon
Philbrick, Charles W	192 Methuen st	state house clerk

P

Prince, George C	5 Simpson st	picture framer
Prince, Henry K	404 Bridge st	nurse
Proctor, John K	13 Tenth st	clerk
Puffer, Eugene W	34 Thirteenth st	clerk
Puffer, Freeman W	34 Thirteenth st	crockery

R

Raynes, Harry	176 Sixth st	jeweller
Richardson, George H	4 Hildreth st	bookkeeper
Richardson, Albert J	161 Hildreth st	shuttle maker
Richardson, Charles H	40 Hampshire st	clerk
Robbins, Charles H	62 Twelfth st	tobacco
Roberts, Warren N	26 Eighteenth st	grocer
Rogers, Charles P	737 Lakeview ave	laborer
Rowell, Edward T	70 Methuen st	bank president
Rowlandson, William E	1012 Lakeview ave	dyer

S

Salisbury, Henry E	45 Beech st	carpenter
Sanborn, Fred W	44 Fred st	carpenter
Saunders, Arthur W	94 Twelfth st	manufacturer
Sawtell, John B	48 West Fifth st	machinist
Shattuck, Edwin L	738 Bridge st	blacksmith
Shattuck, Silas P	738 Bridge st	blacksmith
Sherwood, Frank J	79 Vernon st	glue maker
Simpson, John A	130 Jewett st	job contractor
Stacey, Duane P	75 Beacon st	clerk
Sternberg, Israel H	142 West Sixth st	reporter
Stevenson, Herbert O	264 Beacon st	druggist
Stickney, Henry H	28 Beech st	grocer
Stickney, Edwin L	1141 Bridge st	bookkeeper
Speed, Henry C	137 Coburn st	student

T

Taylor, George H	29 Twelfth st	Hood's
Taylor, Luke B	8 Wachusett st	weaver

T

True, Charles H	46 Hampshire st	painter
Tyler, Rinaldo H	146 Sixth st	machinist

V

Varnum, Daniel H	697 Bridge st	real estate

W

Wadleigh, Jude C	139 Hildreth st	superintendent
Walsh, Frederick T	104 Eleventh st	agent
Walsh, James P	147 Coburn st	mason
Washburn, Charles D	84 West Sixth st	grocer
Washburn, George B	84 West Sixth st	reporter
Weilbrenner, Charles G	832 Bridge st	clerk
Whitney, Fred H	596 Beacon st	bookkeeper
Whitney, Charles H	164 Coburn st	job express
Wight, George H	93 Durant st	piper
Wilson, Albert B	535 Beacon st	cashier
Woodside, William E	77 Beech st	photographer

Y

Young, Artemus S	73 Beech st	bookkeeper
Young, Charles S	73 Beech st	musician

Z

Zimmer, Charles E	60 Varnum st	engraver

Ward Seven.

A

Allen, Charles H	57 Rolfe st	manufacturer
Austin, Charles E	90 Mt Vernon st	piano dealer

B

Barrett, Edward J	137 Salem st	merchant
Bartlett, Orrin	9 Mt Grove st	letter carrier
Bascom, Fred E	4 Ready ave	yard master
Bennett, John C	45 Walker st	merchant
Bennett, George H	6 Mammoth rd	barber
Best, Amos P	105 School st	milkman
Bills, George F	46 Old Meadow road	printer
Blanchard, Charles F	49 Arlington st	druggist
Blodgett, George A	21 Marsh st	belt maker
Bolton, Thomas M	100 Mt Washington	harness maker
Boutwell, Roswell M	33 Wannalancit st	merchant
Bradt, David H	125 Mt Vernon st	baker
Bradt, Gerritt J	523 Fletcher st	baker
Brigham, Charles W	31 Arlington st	clerk
Brown, Philip P	59 Second ave	teamster
Burbank, Percival P	14 Eighth ave	trader
Burnham, Crawford	553 Fletcher st	lumber dealer

C

Cassidy, George W	4 Fifth ave	clerk
Chase, Charles H	33 Race st	optician
Clark, Luke H	39 Clark st	grocer
Clement, George E	8 Dodge st	carpenter
Cobb, Frank	301 Pawtucket st	painter
Coburn, Alonzo A	70 Rolfe st	manufacturer
Coburn, Charles H	793 Merrimack st	merchant
Coburn, Clarence G	215 Mammoth road	grocer
Coburn, Walter	14 Wannalancit st	waste dealer
Coffin, Abram	712 Suffolk st	boarding master
Conant, Frederick	785 Broadway	foreman

C

Corliss, Ammi L	685 Broadway	L M S
Crowley, Dennis J	112 Walker st	clerk
Cummings, Frank G	187 Varnum ave	box maker
Custy, Patrick J	96 Mt Washington st	merchant
Cutler, John S	772 Varnum ave	barber

D

Dana, William H jr	230 Cabot st	machinist
David, Philias, jr	497 Moody st	painter
Denning, Levi	171 Mt Hope st	grocer
Donohoe, Michael F	149 Cross st	machinist

E

Erskine, Charles M	138 Mt Vernon st	grocer

F

Fitzgerald, James J	29 Butterfield st	clerk
Fletcher, Clarence W	95 Butterfield st	clerk
Foster, Hiram A	209 Cabot st	machinist

G

Gee, Charles E	20 Butterfield st	machinist
Gerrish, Thomas G. jr	252 Pawtucket st	P. O. R. R. C
Goulding, William H	123 Walker st	slater

H

Hall, Charles G	526 Moody st	trader
Hamilton, Amasa S	38 Race st	express
Hanchett, Frank	69 Arlington st	produce dealer
Harris, Arthur W	180 Pawtucket st	merchant
Harris, George W	158 Mt Vernon st	manufacturer
Harris, Fred E	80 Mammoth road	engineer
Hartwell, James D	445 Moody st	grocer
Hart, Daniel J	15 Lombard st	baker
Holmes, Mark E	6 Dane st	woodworker
Huntoon, Adelbert M	182 Mt Vernon st	shoemaker
Huntoon, George L	37 Butterfield st	broker
Howe, Alfred J	4 Eighth ave	real estate

J

Judkins, Charles J H	22 W Bowers st	trader

K

Kelley, Frank F	118 Mt Wash'gton st	gentleman
Kelty, James F	35 Varney st	grocer
Kennedy, Thomas J	503 Fletcher st	clerk
Kidder, Charles F	1 Spaulding st	clerk
Killpartrick, Samuel W	46 Butterfield st	fruit dealer

L

Lamothe, Louis P	51 Mammoth road	baker
Leavitt, George E	99 Mt Washington st	salesman
Libbee, George F	58 Wannalancit st	trader
Lynch, Edward	19 James st	operative
Lynch, Thomas F	19 James st	plumber
Luscomb, Charles H	9 Coburn ct	painter

M

Maguire, Thomas F	22 Varney st	advertising ag't
Mahoney, John P	41 Butterfield st	assessor
Marren, James	420 Fletcher st	real estate
Marren, William D	56 Butterfield st	chemist
Marshall, Abner H	28 Riverside st	blacksmith
Marshall, Arthur H	538 Varnum ave	farmer
McCue, Michael H	781 Broadway	water works
McKinley, Robert	105 Woodward ave	clerk
Merrill, Otis A	92 Wannalancit st	architect
Mitchell, James W	79 Mt. Washington st	overseer

N

Nichols, Frank C	800 Broadway	foreman

O

O'Brien, David W	33 Phillips st	manager
O'Hearn, John A	9 Phillips st	clothier
O'Hearn, Patrick	482 Moody st	contractor
O'Sullivan, Humphrey	105 Butterfield st	shoe dealer
O'Sullivan, James	105 Mt Wash'gton st	shoe dealer

P

Paradis, J Wilfred	15 Second ave	trader
Parker, Walter L	23 Lombard st	manufacturer
Parthenais, Charles H	779 Merrimack st	merchant
Parthenais, David A	30 Phillips st	merchant
Perham, Foster	100 Riverside st	clerk
Perham, Haven C	19 Wannalancit st	agent
Pevey, George E	37 Walker st	manufacturer
Pilling, Herbert	112 Walker st	shoe manufact'r
Proctor, Fred W	57 Walker st	plumber

R

Ready, Ambrose L	67 Walker st	junk dealer
Ready, James A	67 Walker st	boiler maker
Ricker, Augustus M	60 Law corp Race st	broker
Richardson, William W	7 Willie st	grocer
Rideout, Howard A	23 Dodge st	operative
Rogers, Jacob	187 Pawtucket st	treasurer

S

Salmon, Edward A	186 School st	overseer
Samuels, Fred	234 Cabot st	overseer
Seeton, Robert B	19 Eighth ave	brass worker
Senter, William F	238 Cabot st	overseer
Simmons, Ralph A	746 Broadway	clerk
Smith, Lorenzo E	122 Mammoth rd	book-keeper
Snow, Samuel E	89 School st	mason
Spedding, Ephraim H	1 Rockdale ave	overseer
Stacey, Sullivan S	6 Varnum ave	trader
Stafford, Eben D	162 Riverside st	overseer
Stiles, Perry P	15 Varney st	grocer

T

Thompson William M	3 Bachelder pl	blacksmith

V

Varnum, Thomas	476 Varnum ave	farmer
Vigeant, Felix	102 Ford st	grocer

V

Vining, Alonzo H	71 Mammoth road	carpenter
Vining, Hiram	36 Fourth ave	carpenter

W

Walker, Thomas R	101 Butterfield st	machinist
Wheeler, Albert H	710 Merrimack st	grocer
Wilson, Joseph M	47 Seventh ave	butcher
Woodman, Warren H	477 Moody st	druggist

Y

Young, George H	8 Gore st Suffolk corp	clerk

Ward Eight.

A

Abbott, Albert H.	84 Fruit st	blacksmith
Abbott, Henry F	278 Branch st	dealer
Abels, Samson	43 Nicollet st	merchant
Ainsworth, William L.	524 Westford st	gentleman
Aldrich, Daniel W	44 So. Loring st	dealer
Allen, Hanson W	47 Hadley st	janitor
Atwood, William P	11 Harding st	chemist

B

Bachelder, Joseph C	221 Foster st	real estate
Bacheller, Elliot B	213 Shaw st	dentist
Bagley, George W	78 Princeton st	carpenter
Baker, J. Avison	103 So. Loring st	music teacher
Barker, Joseph S	538 Chelmsford st	machinist
Barris, James	53 London st	blacksmith
Barrows, John J	11 London st	overseer
Barton, Cyrus	79 Walker st	contractor
Bateman, John F.	14 Stevens st	lumber surveyor
Beals, Horace P	84 Marlborough st	lumber
Bennett, Fred W	475 Wilder st	roofer
Bent, William H	107 Livingston ave	lawyer
Bertand, Arthur M	18 C st	tailor
Biggs, John	24 Canton st	carpenter
Blake, Benjamin M	124 Shaw st	dealer
Blodgett, Emery F	37 Midland st	clerk
Brown, Fred S.	12 Puffer st	dealer
Brown, Warren A	15 Belmont st	clerk
Bruce, Joseph W	13 Powell st	machinist
Boyle, John L	110 Congress st	machinist
Boynton, Arthur G	49 Robbins st	milkman
Bowers, Eugene F	494 Westford st	dealer
Butterfield, Arthur D	84 Forrest st	printer
Byam, Sumner A	185 Foster st	clerk

C

Caddell, William	557 Chelmsford st	clerk
Carter, John W	63 Jenness st	cabinet maker
Carter, Charles E	24 Marlborough st	druggist
Carter, John N	612 Chelmsford st	dealer
Chalifoux, Joseph L	377 Wilder st	dealer
Chandler, John A	1482 Middlesex st	watchman
Charters, Reuben P	112 Congress st	baggage master
Chase, George W	19 Lincoln st	contractor
Chase, George A	36 Canton st	superintendent
Childs, Clarence N	43 Pine st	asst. superin'dent
Clark, Avery B	82 So. Walker st	clerk
Clee, John E	235 Plain st	operative
Coburn, Frank A P	759 Stevens st	farmer
Connors, Philip P	43 Short st	teamster
Constantineau, Cyrille	1857 Middlesex st	merchant
Creswell, Charles H	407 Lincoln st	stone cutter
Crown, George W	108 Livingston av	machinist
Curtice, Byron F	2 Massasoit st	car inspector
Cutler, Arthur S	17 Nicollet st	architect

D

Daniels, John S	558 Chelmsford st	gentleman
Davis, Charles O	14 Edson st	lumber dealer
Desmond, John	110 Powell st	operative
Dodge, Edward P	39 Washington st	operative
Dow, James	222 Lincoln st	contractor
Dugdale, James P	48 Marlborough st	cigar dealer
Dunklee, Ben F	67 London st	foreman
Durant, George	21 Blossom st	dealer

E

Edwards, Charles F	196 Hale st	designer
Emerson, Charles F	514 Westford st	clerk
Estabrook, George L	108 Marshall rd	overseer
Estes, George	725 Stevens st	farmer
Evans, Frederick	38 Blossom st	marble cutter
Everett, Willard	12 Belmont st	manager

F

Field, Albert L	1057 Gorham st	druggist
Fifield, George W	1180 Middlesex st	manufacturer
Fletcher, Marcellus H	49 Powell st	gentleman
Foster, William	9 Wilsondale pl	machinist
Frost, Channing A	1677 Middlesex st	dealer

G

Gale, Charles A	23 Jenness st	clerk
Glidden, J. Clark	18 Belmont st	dealer
Gray, Alanson	99 So. Walker st	clerk
Grady, James	398 Lincoln st	carpenter
Graves, Charles B	1 Blodgett st	knitter
Green, Harry C	113 So. Walker st	agent
Green, Lorin	379 Chelmsford st	railroad
Greenwood, Othello O	180 Hale st	dealer
Greig, Alexander	52 Cambridge st	carpenter
Goodale, Oal B	19 Robinson st ct	marble cutter

H

Hanson, James S	584 Westford st	dealer
Harris, Eugene A	659 School st	real estate
Harris, George H	37 Blossom st	operative
Harris, H. Emmons	529 School st	dealer
Hartwell, George W	649 Westford st	salesman
Hilt, William D	54 So. Loring st	wheelwright
Hoyt, Frank	139 A st	dealer
Howard, James	163 Congress st	folder
Hunt, John A	523 Westford st	roofer

I

Ilsley, Philip H	513 Westford st	dealer
Ingham, George H	62 Lincoln st	sausage manuf'r
Ingham, William A	1179 Middlesex st	dealer

J

Jacobs, Aaron	69 Congress st	carpenter

J

Jenness, Fred W	710 Chelmsford st	dealer
Johnson, Isaac G.	317 Chelmsford st	carpenter

K

Kappler, Charles F	37 Fruit st	blacksmith
Kelley, John F	11 Burnside st	carpenter
Kimball, William H	475 Stevens st	manufacturer
Kittredge, Luther F	42 Jenness st	mason
Knight, Francis W	458 Princeton st	second hand

L

Lane, Stephen H	4 Pine st	machinist
Lang, Horace B	85 Forrest st	carpenter
Libby, Fred V	56 Harvard st	clerk
Libby, Oliver A	399 Stevens st	printer
Livingston, William	77 Livingston ave	clerk
Lovejoy, Fred A	25 Dover st	draughtsman

M

Marshall, Avery J	215 Parker st	laborer
Marshall, James G	1067 Gorham st	paymaster
McEwan, Curtis	52 Cunningham st	tinsmith
McIntire, George E	605 Wilder st	machinist
McMahon, Frank	539 Chelmsford st	machinist
McQuesten, John	89 Washington st	clerk

N

Niblock, Archibald A	275 Foster st	dealer
Niblock, William H	275 Foster st	bookkeeper
Noyes, William E	94 Princeton st	dealer

O

Osgood, Albert E	869 Gorham st	farmer
Osgood, Charles E	27 Hastings st	machinist

P

Parker, Arthur W	306 Pine st	milkman
Parker, Elbridge G	1083 Gorham st	coal & grain dealer
Parkin, Wallace G	614 Westford st	clerk
Parsons, George F	158 Hale st	printer
Penn, Charles A	227 West London st	carpenter
Person, Nils	82 London st	carpenter
Pierce Abner K	419 Chelmsford st	dealer
Pierce, Cassius W	244 Stevens st	express
Pindar, Albert	City Farm	superintendent
Plummer, John A	113 Shaw st	real estate
Potter, William H	290 Pine st	clerk
Putnam, Frank E	1210 Middlesex st	restaurant

R

Randlett, Orrin B	353 Wilder st	dealer
Read, William W	228 Liberty st	gentleman
Read, William A	228 Liberty st	salesman
Reynolds, Daniel H	22 South Walker st	engineer
Rice, Harry R	134 Liberty st	manager
Richardson, Herbert A	1015 Gorham st	chemist
Rushworth, Charles B	58 So. Loring st	agent
Russell, Asa C	331 Wilder st	manufacturer
Ryan, John	789 Westford st	junk dealer

S

Sawyer, Albert L	342 Westford st	druggist
Sayers, Thomas J	1401 Middlesex st	starter
Scannell, Cornelius	62 Cambridge st	boiler maker
Sherwell, William M	260 Pine st	superintendent
Silver, Fred W	94 So. Loring st	machinist
Slater, Joseph F	611 Wilder st	dealer
Smiley, Sylvanus C	18 Jenness st	gentleman
Smiley, Sylvanus C	18 Jenness st	gentleman
Smith, Caleb L	878 Chelmsford st	dealer
Stratton, Torrey E	167 Stevens st	clerk
Spear, Frederick A	576 Westford st	agent

S

Stockman, Edward	1164 Middlesex st	lumber surveyor
Stott, Charles F	96 Pine st	dealer
Stott, John W	36 Marlborough st	accountant
Sturtevant, Charles S.	221 Foster st	musician
Sullivan, Cornelius F	4 Olive st	barber
Sweatt, Ellsworth E	80 Cambridge st	carpenter
Swift, Lewis H	25 Nicollet st	clerk

T

Taylor, Frank B	74 A st	mason
Thissell, Ova N	83 Midland st	agent
Thurston, Eben R	31 B st	elevator man
Thyne, Lawrence J	29 Frye st	reporter
True, Mitchell C	606 Westford st	clerk
True, David	420 Lincoln st	builder

U

Urann, Charles F	408 Lincoln st	foreman

W

Walsh, William H	86 Congress st	dyer
Whitcomb, Irving	48 So. Walker st	dealer
Whiteknact, James H	34 Robinson st	clerk
White, George O	53 So. Walker st	ticket agent
Whithed, Darius	393 Wilder st	dealer
Whitman, Charles W	212 Shaw st	foreman
Wilder, Charles W	291 Wilder st	dealer
Wing, James A	166 Shaw st	machinist
Wellman, Fred W	111 Stevens st	gentleman
Westwood, John S	14 Wilsondale pl	druggist
Wood, Charles R	300 Wilder st	vet. surgeon

Y

Young, Charles M	19 Robins st	undertaker
Young, Walter L	1149 Middlesex st	gentleman

Ward Nine.

A

Adams, Enos H	332 E Merrimack st	shoemaker
Adler, Walter	16 Crowley st	overseer
Ahlberg, Carl	70 Andrews st	machinist
Andrews, J Munn	452 E Merrimack st	merchant
Anderson, James	27 Alder st	gentleman
Arnold, William M	147 Pleasant st	cigar maker

B

Bagley, Charles N	79 Andrews st	overseer
Baldwin, Edwin K	92 Holyrood ave	bookkeeper
Barber, William	71 So Whipple st	operative
Barnes, Henry W	30 Huntington st	tailor
Bayles, James	394 High st	editor
Boyle, Edward D	124 Andrews st	printer
Brazer, Ralph F	46 Fairmount st	merchant
Brennan, John J	196 Concord st	butcher
Brennan, Miles F	232 Moore st	salesman
Brown, John A	18 Bourne st	janitor
Burrage, Hamilton	856 Gorham st	paymaster
Brown, William H	67 Bartlett st	gentleman
Burbank, Samuel	72 Fort Hill ave	clerk
Burke, Edward N	216 Nesmith st	superintendent
Burns, Edward	154 Concord st	wool sorter
Burns, Malachi	84 Pleasant st	grocer
Burrows, William	89 Agawam st	overseer

C

Calderwood, William	434 High st	cigar maker
Campbell, George	71 Agawam st	dealer
Carpenter, W Irving	28 So Whipple st	dealer
Casey, George W	45 Willow st	tannery
Cawley, Edward	229 Perry st	coal dealer
Chadwick, Alfred M	87 Fort Hill ave	paymaster
Chadwick, Austin K	444 Andover st	treasurer

C

Chase, George A	205 Fairmount st	gentleman
Clark, Arthur L	251 E Merrimack st	grocer
Clark, Cornelius E	228 High st	machinist
Clark, Michael F	151 Andover st	painter
Cluin, John J	130 Fort Hill ave	jeweler
Connell, Paul T	125 Stackpole st	printer
Corcoran, Patrick	40 Fort Hill ave	contractor
Costello, Charles R	295 Nesmith st	plumber
Crosby, Benjamin F	111 Moore st	contractor
Crowell, Albert	378 Rogers st	druggist
Cuff, John H	18 Agawam st	shuttle maker

D

Dana, George R	170 Holyrood ave	superintendent
Dawson, James	84 So Whipple st	paper hanger
Dean, Simon	516 Lawrence st	clerk
Dilworth, Dennis	44 Merrill st	overseer
Dimon, Charles A R	223 Parkview ave	superintendent
Dow, John D	125 Stackpole st	carpenter
Drury, John E	44 Hanks st	plumber
Dunlap, Harry	20 Nesmith st	merchant
Dutton, George E	149 Fairmount st	dealer
Dwyer, John F	262 Concord st	painter

E

Eckhardt, Herman jr	77 Fort Hill ave	bookkeeper
Ellingwood, Edward	56 Huntington st	druggist
Ellingwood, George B	240 E Merrimack st	clerk
Emsley, Gesrge	20 Weed st	comb maker

F

Farrington, Willis	234 Nesmith st	manufacturer
Faulkner, John A	32 Belmont ave	manufacturer
Fay, Frederick T	91 Fort Hill ave	druggist
Felton, Henry F	385 Andover st	organist

F

Fife, James	46 Merrill st	machinist
Fitzpatrick, John	84 Pleasant st	clerk
Fletcher, Silas W	120 Agawam st	manufacturer
Freeman, Benjamin F	25 Fort Hill ave	lighting dept
Freeman, James E	83 Andrews st	grocer
Fuller George B	1524 Gorham st	farmer

G

Gardner, Everett M	198 Holyrood ave	architect
Gates, Henry K	400 E Merrimack st	manager
Gates, Prescott C	400 E Merrimack st	manufacturer
Gilbert, Oscar J	64 Wentworth ave	dealer
Gillon, Hugh F	84 Bartlett st	editor
Goodwin, Joseph B	115 Nesmith st	screen maker
Gookin, James	300 Concord st	furniture dealer
Griffin, Samuel P	91 Mansur st	gentleman
Gumb, Harry M	17 Fay st	stone cutter

H

Hardman, David B	123 Agawam st	printer
Hartford, Thomas D	341 E Merrimack st	merchant
Hatch, Henry	65 Fay st	dealer
Hawkes, Levi W	228 Wentworth ave	merchant
Hayden, Charles F	23 Otis st	stone cutter
Hines, Samuel F	1500 Gorham st	dealer
Hobson, Charles H	26 Hanks st	manager
Hoole, Henry	66 Bartlett st	assessor
Hudner, Daniel	205 Stackpole st	clerk
Hylan, Eugene S	28 Nesmith st	manufacturer

J

Johnson, Francis	494 Lawrence st	dealer

K

Kelley, Edward W	129 Moore st	machinist
Kershaw, Thomas	23 Otis st	spinner
Knapp, Charles L	85 Fort Hill av	cashier

L

Lawrence, Abbott	113 Fort Hill ave	jeweler
Leith, Edwin E	77 Moore st	dresser
Leith, William H	546 Lawrence st	grocer
Little, Moses	77 Mansur st	merchant
Locke, Herbert W	187 Hovey st	grocer
Lofgren, Halver	218 Moore st	foreman
Lundberg, Frank G	44 Fay st	laundryman
Lyman, John F	17 Anderson st	laborer
Lynch, Thomas J	31 Crowley st	clerk

M

Maddocks, George	1354 Gorham st	dealer
Marden, George A	84 Fairmount st	editor
McElholm, William H	188 Concord st	plumber
McGilley, Patrick	112 Concord st	teamster
McKenna, Thomas	86 Belmont st	coachman
McOsker, Hugh C	209 Stackpole st	wall paper
McQuade, Arthur	65 Pleasant st	moulder
McQuade, Michael	65 Pleasant st	overseer
McMahon, Peter	39 Carter st	gentleman
McNamara, Thomas	142 Concord st	coachman
Meldrum, Robert	130 Bartlett st	paper-box maker
Midgely, Robert	11 So Whipple st	overseer
Monaghan, John F	18 Bleachery st	superintendent
Morrill, Eugene F	136 Fort Hill ave	bookkeeper
Muldoon, Thomas	790 Gorham st	laborer
Murkland, James	313 High st	foreman

N

Naylor, Charles	250 Wentworth ave	druggist
Nelson, George A	91 Mansur st	civil engineer
Noble, John	4 Carter pl	second hand
Norcross, Nicholas G	69 Huntington st	insurance agent
Nesmith, Joseph A	229 Andover st	gentleman

O

O'Brien, John	99 Pleasant st	blacksmith
Offutt, George F	315 High st	merchant
O'Hara, Benjamin F	103 Bowden st	bricklayer
O'Neil, James	88 Agawam st	bolt maker

P

Palm, Nelson	25 Fay st	gardener
Palmer, Charles D	129 Fairmount st	gentleman
Parker, Theodore E jr	5 James ct	manager Tel Co
Pihl, Carl F	53 Lundberg st	dealer
Pihl, Carl G A F W E	45 Fay st	engineer
Pindar, James H	352 E Merrimack st	dealer
Pollard, Arthur G	110 Mansur st	merchant
Prescott, Dudley M	23 Oak st	plasterer

Q

Quinn, Michael J	58 Pleasant st	bolt maker

R

Richards, John	44 Bartlett st	expressman
Ryerson, Henry J	364 E Merrimack st	gentleman
Russell, James B	59 Nesmith st	clerk
Russell, Edward A	320 Wentworth ave	carpenter
Rountree, Alex E	98 Pleasant st	clerk

S

Sanborn, Edwin	308 High st	carriage maker
Saunders, Orlando	87 Nesmith st	agent
Sexton, John E	116 Agawam st	superintendent
Shepard, Jesse H	276 Parkview ave	real estate
Shepherd, Robert J	358 Concord st	B & M R R
Simonds, Frank J	284 Concord st	editor
Sladen, Arthur W	23 Otis st	U S Cartr'ge Co
Smith, Lawrence J	117 Stackpole st	clerk
Stafford, William H	9 Meadowcroft st	janitor
Stott, Charles A	173 Nesmith st	manufacturer

S

Swan, Daniel A	486 E Merrimack st	merchant
Swan, Joseph C	142 Andover st	gentleman
Swanton, Albion F	328 Wentworth ave	superintendent
Sutliffe, William T	72 Otis st	dresser

T

Taylor, Joseph	28 So Whipple st	dealer
Tice, Samuel	98 Cosgrove st	overseer

W

Wahlgren, Carl A	78 Cosgrove st	cigar maker
Walker, Thomas C	80 Chestnut st	druggist
Watson, Robert W	231 Perry st	laborer
White, Henry K	250 Nesmith st	tannery
Whittet, James	50 Wentworth ave	carpenter
Wilder, William F	20 Huntington st	merchant
Wirt, William	16 Ash st	painter
Wright, Frank B	57 Willow st	carpenter

CITY DOCUMENT, 1896.

SALARIES OF THE OFFICERS

OF THE

CITY OF LOWELL

FOR THE YEAR 1897.

LOWELL, MASS.
MORNING MAIL PRINT: 277 CENTRAL STREET.
1896.

CITY OF LOWELL.

In the year eighteen hundred and ninety-six.

RESOLUTION

ESTABLISHING THE SALARIES OF OFFICERS OF THE CITY OF LOWELL FOR THE YEAR 1897.

RESOLVED by the Board of Aldermen and Common Council of the City of Lowell, in City Council assembled, as follows:—

The salaries of the several city officers for the year beginning on the first day of January and ending on the thirty-first day of December, one thousand eight hundred and ninety-seven, shall be at the rate herein mentioned; to be paid monthly, unless herein otherwise ordered.

SECTION 1. The salary of the MAYOR shall be at the rate of three thousand dollars per annum. Mayor.

SECT. 2. The salary of the CITY CLERK shall be at the rate of eighteen hundred dollars per annum. City Clerk.

SECT. 3. The salary of the CITY TREASURER shall be at the rate of twenty-seven hundred dollars per annum for performing the duties of City Treasurer City Treasurer.

and Collector of Taxes. He shall annually give a bond in the sum of fifty thousand dollars, with good and sufficient sureties, satisfactory to the Mayor and Aldermen, for the faithful performance of his duties, and to account for all sums of money received in the sales of Water Bonds, and the collection of Water Rates, and in the capacity of City Treasurer and Collector of Taxes.

Auditor of Accounts.

SECT. 4. The salary of the AUDITOR OF ACCOUNTS shall be at the rate of eighteen hundred dollars per annum.

City Solicitor.

SECT. 5. The salary of the CITY SOLICITOR shall be at the rate of three thousand dollars per annum, which shall be in full for all services rendered the city, and he shall devote his whole time to the service of the city.

Civil Engineer.

SECT. 6. The salary of the CIVIL ENGINEER shall be at the rate of twenty-seven hundred dollars per annum, which shall be in full for services as Civil Engineer of the City of Lowell. He shall be allowed such assistance as the Chairman of the Joint Standing Committee on Streets, the Chairman of the Committee on Sewers, and the President of the Lowell Water Board may determine.

City Physician.

SECT. 7. The salary of the CITY PHYSICIAN shall be at the rate of seven hundred dollars per annum, which shall be in full for all services rendered the city.

Clerk of the Common Council.

SECT. 8. The salary of the CLERK OF THE COMMON COUNCIL shall be at the rate of three hundred dollars per annum.

SECT. 9. The salary of the CITY MESSENGER shall be at the rate of twelve hundred dollars per annum. Messenger.

SECT. 10. The salary of the MEASURER OF WOOD AND BARK, in the rear of the Market-house building, shall be at the rate of six hundred dollars per annum; and he shall account for all fees received by him in his official capacity; shall pay the same into the treasury monthly, and at the same time make a report of the amount so paid to the Auditor of Accounts; and also shall be required to devote, daily, to his duty such time as the Mayor may direct. The salary of any additional measurers of wood and bark shall be at such rate as the Mayor and Aldermen may, from time to time, determine; *provided*, that the same shall not exceed the amount of fees received. Measurer of Wood and Bark.

SECT. 11. The salary of the PRESIDENT OF THE LOWELL WATER BOARD shall be at the rate of four hundred dollars per anuum. President of the Lowell Water Board.

SECT. 12. The Joint Committee on Accounts and the Joint Committee on Finance may establish the pay for clerical assistance in the offices of the City Clerk, City Treasurer, Auditor of Accounts, Assessors of Taxes, City Solicitor, and Department of Supplies. The Committee on State Aid may provide such clerical assistance as may be necessary in the distribution of State Aid.

POLICE.

SECT. 13. THE salary of the POLICE COMMISSIONERS shall be at the rate of one thousand dollars Police Commissioners.

each per annum, and the Chairman of said commission shall receive two hundred dollars additional.

Superintendent of Police.

The salary of the SUPERINTENDENT OF POLICE shall be at the rate of two thousand dollars per annum.

Deputy Superintendent and Captain of Police.

SECT. 14. The salaries of the DEPUTY SUPERINTENDENT and CAPTAIN OF POLICE shall be at the rate of fourteen hundred dollars per annum each; payable weekly.

The salaries of the three LIEUTENANTS OF POLICE shall be at the rate of thirteen hundred dollars per annum each; payable weekly.

The salaries of the INSPECTORS OF POLICE shall be at the rate of twelve hundred dollars per annum each; payable weekly.

The compensation of the two SERGEANTS OF POLICE shall be at the rate of three dollars per day each; payable weekly.

Day and Night Police Officers.

The compensation of DAY AND NIGHT POLICE OFFICERS shall be at the rate of two dollars and seventy-five cents per day each; payable weekly.

Matron of the Police Station.

The compensation of the MATRON OF THE POLICE STATION shall be at the rate of six hundred dollars per annum; payable weekly.

SECT. 15. All fees received by the officers mentioned in the two preceding sections, for attendance as witnesses, or for any other service in an official capacity, shall be paid by the officer receiving the same to the City Treasurer; and said officer shall,

at the same time, report to the Auditor of Accounts the amount thus paid; *provided*, however, that said officers need not account for any fees for travel and attendance before the Supreme Judicial and Superior Courts as witnesses.

The Standing Justice of the Police Court of Lowell

SECT. 16. The STANDING JUSTICE OF THE POLICE COURT OF LOWELL shall be paid at the rate of one hundred dollars per annum, for receiving complaints, issuing warrants, and trying cases under the forty-eighth chapter of the Public Statutes, or any subsequent Act or Ordinance concerning truant children and absentees from school.

SUPERINTENDENTS AND INSPECTORS.

Superintendent of Streets.

SECT. 17. The salary of the SUPERINTENDENT OF STREETS shall be at the rate of two thousand dollars per annum. The city shall furnish a horse and conveyance for his use.

Superintendent of Public Buildings.

SECT. 18. The salary of the SUPERINTENDENT OF PUBLIC BUILDINGS shall be at the rate of eighteen hundred dollars per annum. The city shall furnish a horse and conveyance for the use of himself and the men under his charge.

Superintendent of the Water Works.

SECT. 19. The salary of the SUPERINTENDENT OF THE WATER WORKS shall be at the rate of eighteen hundred dollars per annum; and the city shall furnish a horse and carriage for his use.

Superintendent of City Scales.

SECT. 20. The salary of the SUPERINTENDENT OF CITY SCALES shall be at the rate of two hundred dollars per annum; and he shall pay into the city treasury all moneys received for fees.

The salary of any additional Weigher of Hay and other articles shall be at such rate as the Mayor and Aldermen may, from time to time, determine; *provided*, that the same shall not exceed the amount of fees received.

Fish Warden. Pound-keeper.

SECT. 21. The salary of the FISH WARDEN shall be at the rate of ten dollars per annum; and the salary of POUND-KEEPER shall be at the rate of five dollars per annum.

Sealer of Weights and Measures.

SECT. 22. The salary of the SEALER OF WEIGHTS AND MEASURES shall be at the rate of three hundred dollars per annum; and all fees received by him shall be paid into the city treasury monthly; and he shall, at the same time, report to the Auditor of Accounts the amount of such payment.

Secretary of the Board of Overseers of the Poor.

SECT. 23. The salary of the SECRETARY OF THE BOARD OF OVERSEERS OF THE POOR shall be at the rate of fifteen hundred dollars per annum.

Board of Health.

SECT. 24. The salary of the appointed members of the BOARD OF HEALTH shall be at the rate of five hundred dollars per annum each.

Inspector of Milk, Vinegar, Oleomargarine, and Provisions.

SECT. 25. The salary of the INSPECTOR OF MILK, VINEGAR AND OLEOMARGARINE shall be at the rate of fifteen hundred dollars per annum, and he shall perform whatever work he is called upon to do for the Board of Health.

REGISTRARS OF VOTERS.

Registrar of Voters.

SECT. 26. The salary of the members of the BOARD OF REGISTRARS OF VOTERS shall be at the rate of

five hundred and fifty dollars per annum each. They shall receive their pay in equal amounts, in the months of July, August, September, October, November and December.

ASSESSORS' DEPARTMENT.

Assessors of Taxes.

SECT. 27. The salary of the ASSESSORS OF TAXES shall be at the rate of twenty-two hundred and fifty dollars per annum each. And the salary of the Assistant Assessors shall be at the rate of twelve hundred dollars each, per annum.

FIRE DEPARTMENT.

SECT. 28. The salaries of the several members of the Fire Department, for the year beginning May 1st, one thousand eight hundred and ninety-seven, shall be as herein mentioned, to be paid semi-annually, unless otherwise ordered.

Chief Engineer.

The salary of the CHIEF ENGINEER shall be at the rate of two thousand dollars per annum, payable monthly, which shall be in full payment for all services which may be required of him by the City Council; and he shall devote his whole time to the duties of his office.

First Assistant Engineer.

The salary of the FIRST PERMANENT ASSISTANT ENGINEER shall be at the rate of twelve hundred dollars, payable monthly; and he shall devote his whole time to the service of the city; and the salaries of the Assistant Engineers shall be at the rate of four hundred dollars each per annum.

Secretary of the Board of Engineers

The SECRETARY OF THE BOARD OF ENGINEERS, who shall be a member of the board, shall receive twenty-five dollars additional, which shall be in full payment for all the services which may be required of him by the Mayor and Aldermen, the Chief Engineer and the Board of Engineers.

Call Foremen.

The CALL FOREMEN of the respective Hose, Hook and Ladder, and Steam Fire Engine Companies shall be paid at the rate of three hundred dollars each per annum.

Captains.

CAPTAINS of Companies and ENGINEERS of Steamers shall be paid three dollars per day.

Drivers.

DRIVERS of Steamers, Hook and Ladder, Horse Hose Carriages, and Protective Wagon, who shall perform all the duties of stewards, and all other permanent men, shall be paid two dollars and seventy-five cents per day each; payable weekly.

Members.

All other members of Steam Fire Engine, Hose, and Hook and Ladder Companies shall be paid at the rate of two hundred dollars per annum each.

SECT. 29. Whenever any person in the employ of the city shall demand payment of his salary, or any part thereof, it shall be the duty of the Auditor and City Treasurer to deduct therefrom any and all sums of money due from such officer to the city.

Inspector of Animals and Provisions.

SECT. 30. The salary of the INSPECTOR OF ANIMALS AND PROVISIONS, appointed under Chap. 491 of the Acts of 1894, shall be at the rate of five hundred dollars per annum; payable equally in the months of April, July, October and January.

SECT. 31. The salary of the SUPERINTENDENT OF THE CITY FARM shall be at the rate of two thousand dollars per annum; payable weekly. Superintendent of the City Farm.

SECT. 32. The salary of the CHIEF OF THE DEPARTMENT OF SUPPLIES shall be at the rate of twenty-four hundred dollars per annum. Chief of the Department of Supplies.